From the Author

A

BOTANICAL ARRANGEMENT

OF

BRITISH PLANTS.

VOL. I.

THE SECOND EDITION.

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A

BOTANICAL ARRANGEMENT

OF

BRITISH PLANTS;

INCLUDING

THE USES OF EACH SPECIES,

IN

MEDICINE, DIET, RURAL ŒCONOMY AND THE ARTS.

WITH AN EASY

Introduction to the Study of Botany, &c. &c.

ILLUSTRATED BY COPPER PLATES.

THE SECOND EDITION.

By WILLIAM WITHERING, M.D. F.R.S.

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INCLUDING

A NEW SET OF REFERENCES TO FIGURES.

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VOL. I.

BIRMINGHAM: PRINTED BY M. SWINNEY;

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M.DCC.LXXXVII.

B L

PREFACE.

AT length the ſecond Edition of the BOTANICAL ARRANGEMENT makes its appearance. The Author pleads in excuſe for its long delay, the multiplicity of his own profeſſional engagements, and the very great improvements, both in the plan, and in the execution of the work. Being conſcious of the unavoidable imperfection attendant on a firſt attempt to naturalize this ſcience, which, in its improved ſtate was new to the Engliſh language; he requeſted the aſſiſtance of others. He is happy to have experienced that approbation of his deſign, which called forth the

assistance he sought for; and the effort of naturalising the doctrines of the Linnæan School of Botany, has been crowned with a degree of success beyond his most sanguine expectations.

From the very liberal assistance he has met with, the work is now risen superior to its first institution, aiming at very essential improvements in that branch of Science, which, at first, it only attempted to render more easily accessible. It may therefore be necessary to enumerate some of the more striking features of the present Edition.

The Translation of the Generic and Specific Characters has been compared with REICHARD's Edition of the Genera and Species plantarum, and the *numbers* of those editions have been adopted.

The ESSENTIAL GENERIC CHARACTER is subjoined to each Generic description, and the ARTIFICIAL character is retained at the head of the Class.

The particular places of growth of the rarer plants are carefully enumerated, and many

many new ones are added, which are included between crotchets. This has been done at the requeſt of ſeveral friends to the work; their opinion prevailing againſt the reaſons adduced for omitting them in the firſt Edition*.

The Reader will find in this Edition ſeveral ſpecies, and many varieties of plants, unnoticed by Linnæus. The Varieties of preceding authors are marked by Greek letters; thoſe peculiar to this work by Arabic numerals.

The Latin Synonyms of Bauhine, Gerard, Parkinſon, and Ray, which occupied ſo much ſpace in the firſt edition, are now omitted; partly becauſe they could be of little uſe to thoſe who do not underſtand

* Mr. Woodward, to whom the readers, as well as myſelf, are indebted for many improvements, in almoſt every page of this work, and whoſe liberality of ſentiment is only equalled by his induſtry and accuracy in botanical inveſtigation, deſires me to obſerve that the *Habitats*, or native places of growth, in the Northern Counties of England, which ſtand in his name, belong jointly to himſelf and Mr. Crowe; the plants having been collected in a journey they took into thoſe Counties, in the ſummer of 1781.

the Latin language, for they who do, may get the references from HUDSON's *Flora Anglica*; and partly to make room for a new ſet of references to figures, which my friend Dr. Stokes undertook to furniſh. Theſe references make one of the moſt valuable parts of the preſent Edition. Nothing ſhort of his extenſive knowledge of the ſubject, joined to an indefatigable induſtry, could have effected the reformation required; but the full force of his exertions will only be underſtood by ſuch as have laboured at the ſubject themſelves, and experienced the difficulty of marſhalling error crowded upon error, into regular and beautiful order. Theſe references are expreſſed in the ſhorteſt way poſſible; the beſt figures are mentioned firſt: The abbreviations are explained by the author of the references, in the catalogue of authors ſub-joined.

The references to RAY are preſerved, ſo far as the Varieties he furniſhed rendered them neceſſary.

The Linnæan names have now taken the lead of the Engliſh ones, and to facilitate

facilitate their adoption, they are accented. In the difficult taſk of accentuation I had the aſſiſtance of my worthy friends Dr. Arnold of Leiceſter, and the late Rev^d. Mr. Newling of Birmingham, whoſe claſſical attainments, eſpecially in Greek literature, were an ornament to the purity and urbanity of his manners. The Engliſh Botaniſt need not now heſitate to pronounce the Latin names, provided he obſerve to throw the force of the voice upon that letter which *precedes* the mark of accentuation *. At the ſame time, the Engliſh names are ſtill retained, in order to ſhew that our language is capable of a regular nomenclature; which, except in a few inſtances, is taken from old eſtabliſhed authors, or from the daily uſe of the inhabitants of our Iſland.

The 3^d. Volume is intended to be publiſhed in the courſe of the enſuing year, and will contain the whole of the Claſs CRYPTOGAMIA, together with an eaſy

* Further directions for the pronunciation will hereafter be given with the accented Index.

INTRODUCTION to the Study of Botany; the beſt methods of preparing and preſerving a HORTUS SICCUS, or a collection of dried ſpecimens of plants; the GLOSSARY of terms, illuſtrated by plates; the neceſſary INDEXES; the Rules for ACCENTUATION; and, more humiliating, though not leſs neceſſary than theſe, the table of *Errata*. The latter may be made more perfect by the obſervations of others, and the author will be thankful either for ſuch, or for any other communications which can tend to advance a favourite ſtudy, or to render more compleat an undertaking which has coſt him much labour and ſome anxiety.

After all, there is nothing farther from the wiſhes of the Author than, that the botanical ſtudent ſhould confine himſelf to the information which may be obtained within the limits of this work only, for its profeſſed intention is to lead him to other valuable ſources of knowledge which are at preſent inacceſſible to the unlearned reader. On this account he has carefully avoided tranſcribing any thing from Mr. Lightfoot's excellent work on the

the plants of Scotland, for, although that work is at preſent of little uſe to any but the Latin Botaniſt, as the ſpecific Characters are given in that language; yet the tranſlations in theſe Volumes will ſupply that defect, and render the Engliſh reader capable of receiving much uſeful and intereſting information, from the valuable deſcriptions in Engliſh, which he has generally ſubjoined.

BIRMINGHAM,
24th Auguſt, 1787.

A LIST

A LIST

Of the Names of thoſe Gentlemen who have favoured this Edition with their aſſiſtance.

DR. ARNOLD, Fellow of the Royal Medical Society of Edinburgh, Phyſician at Leiceſter.

Mr. BALLARD, Surgeon, near Malvern Wells, Worceſterſhire.

Dr. BEDDOES, Lecturer in Chemiſtry, at Oxford.

Dr. BROUGHTON, late Preſident of the Royal Medical Society of Edinburgh, Phyſician in Kingſton, Jamaica.

Mr. BRUNTON, Junr. Perry-hill, near Birmingham.

Rev. HENRY BRYANT, M. A. Heydon, Norfolk.

JAMES CROWE, Eſq. Tuckſwood, near Norwich.

Rev. SAMUEL DICKENSON, L. L. B. Rector of Blymhill, Staffordſhire.

JOHN FORD, Eſq. Surgeon in Briſtol.

Mr. HALL, Newton Cartmell, near Ulverſtone, Lancaſhire.

Mr. HAWKES, Birmingham.

T. F. HILL, Eſq. late of Ely-Place, Holborn, London; now in Italy.

Mr. J. A. HUNTER, Nurſery-man, Perry-hill, near Birmingham.

Rev. WILLIAM HOLLEFEAR, A. M. Vicar of Wolvey, near Hinkley, Leiceſterſhire.

Mr.

Mr. JONES, late Surgeon in Birmingham.

—— MARTYN, Esq. Teignmouth.

Rev. Mr. NEWBERRY, Fellow of Exeter College, Oxon.

Mr. PITCHFORD, Surgeon, in Norwich.

Mr. SAVILLE, Lichfield.

Dr. J. E. SMITH, Proprietor of the Linnæan Collection.

Dr. STOKES, Member of the Royal Medical Society of Edinburgh, correſponding Member of the Society of Antiquaries of Scotland, Phyſician at Shrewſbury.

ROBERT STONE, Esq. Bungay, Suffolk.

J. WATT, Esq. Engineer, Birmingham.

Mr. WHATELEY, Surgeon, Old Jewry, London.

Mr. WIGG, Schoolmaſter, Yarmouth.

Rev. Mr. WOOD, Leeds, Yorkſhire.

THOMAS J. WOODWARD, Esq. L. L. B. Bungay, Suffolk.

THE

THE DESIGN.

NOTWITHSTANDING the very rapid progreſs of Science from the middle of the laſt century, it is only ſince the beginning of this that the ſtudy of Natural hiſtory hath attracted the general attention of mankind.

Botanical enquiries in particular have been confined to a few individuals; partly from the difficulties which attended them, and partly from an opinion that they were only uſeful to the profeſſors of Medicine; but the eſtabliſhment of the LINNÆAN SYSTEM called forth a number of votaries to cultivate this amiable Science; and the pupils of its admirable author convinced mankind, that the Medical properties of Plants, were far from being the only circumſtances worthy their attention.

Still

Still however difficulties remained. An acquaintance with *one* of the Learned Languages was hardly ſufficient to enable us to underſtand his works. The novelty of the ſubject compelled him to invent a variety of new terms; and without, or even with the advantages of an Academical Education, it was a very laborious taſk to attain preciſely that idea, which he wiſhed them to expreſs.

In this ſituation of things, what could be done by thoſe, who from nature, or from accident, found themſelves poſſeſſed with a taſte for Botanical knowledge? They ſtudied Botanical plates: but bad plates conveyed falſe, or inſufficient ideas; and good ones were too expenſive for general uſe. If they applied to old voluminous Herbals, the want of method, the deficiencies, and the long continued attention which was requiſite, fatigued the moſt induſtrious diſpoſitions. If they ſought for information in more modern productions, they found ſuch a multiplicity of terms, formed from the Greek and Latin languages, with nothing truly Engliſh but the terminations; that they ſoon began to deſpair of ſucceſs, and then relinquiſhed the ſtudy in diſguſt.

A Deſire to remove theſe difficulties, and to render the path in this walk of ſcience, as eaſy as it is delightful, firſt gave riſe to the preſent undertaking.

From

From an apprehenſion that Botany in an Engliſh dreſs would become a favourite amuſement with the Ladies, many of whom are very conſiderable proficients in the ſtudy, in ſpite of every difficulty, it was thought proper to drop the ſexual diſtinctions in the titles to the Claſſes and Orders*, and to adhere only to thoſe of Number, Situation, and Proportion. They who wiſh to know the curious facts which gave birth to this celebrated ſyſtem, may conſult the *Philoſophia Botanica*, the *Sponſalia Plantarum*, in the firſt volume of the *Amœnitates Academicæ*; *Lee's Introduction*, and *Milne's Botan. Dict.* where they will meet with many other very intereſting Philoſophical diſquiſitions.

Sexual Diſtinctions.

All controverſies about ſyſtem are here ſtudiouſly avoided. Mankind are weary of ſuch unprofitable diſputes. Every Syſtem yet invented, undoubtedly may glory in its peculiar beauties, and, with no leſs reaſon, bluſh for its particular defects. It is ſufficient for the preſent purpoſe that the ſyſtem of LINNÆUS is now very univerſally adopted; and though confeſſedly imperfect, it approaches ſo near to perfection, that we may perhaps never expect to ſee any other improvements, than ſuch, as will be founded upon his plan.

Of Syſtem.

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* The Linnæan titles however, are ſtill preſerved on the top of the left hand pages, to accomodate thoſe who have been habituated to uſe them.

With

Language. With reſpect to the language, ſome apology is undoubtedly neceſſary. It would be no difficult matter to render the ſentences more connected. This would make them leſs awkward, but at the ſame time leſs perſpicuous. Uſe will take off from the former defect, but nothing can atone for the latter. The beſt Syſtematic Naturaliſts are thoſe who entertain preciſe and well-defined ideas, and communicate them in ſuch a manner, that the characteriſtic features of what they are deſcribing, obtrude themſelves upon the eye.*

Terms. No part of this undertaking demanded more attention, or occaſioned more labour, than the ſelection of the terms. The old Engliſh Botaniſts afforded very conſiderable aſſiſtance: ſtill, however, it muſt be confeſſed, that ſome words foreign to the Engliſh language, are neceſſarily retained: but wherever theſe occur, or wherever an Engliſh word is taken in a more ſtrict acceptation than uſual, it may be found in the Gloſſary; and is there explained, either by a definition, by the aſſiſtance of engravings, or by reference to ſome well-known example.

In quoting examples to explain the terms, it was thought expedient to uſe the moſt common and

* LINNÆUS has great merit in the judicious diſpoſition of his Matter; ſo that a glance of the eye catches in a moment the ſubject in queſtion, without the fatigue of reading page after page. In this work, the ſame mode of printing is adopted.

and well-known names of Plants, and likewiſe to take inſtances from Plants which are frequent in our gardens, whether naturally growing in this country, or not.

The Latin terms uſed by LINNÆUS are thrown into alphabetical order; partly to demonſtrate how little the Engliſh language ſtands in need of foreign terms, and partly with a view of affording aſſiſtance to the reader, when he has occaſion to conſult other writers upon Botanical ſubjects.

Genera. The Synopſis of the Genera, at the head of each Claſs, and the ſub-diviſions of the Orders, will be found greatly to ſhorten the labour of inveſtigation. But the ſub-diviſions are not without exceptions: Theſe, however, as well as the exceptions of particular ſpecies, are noted under ſuch Claſſes, Orders, or ſub-diviſions of Orders, as the learner from the contemplation of the Plant in queſtion would be moſt apt to refer it to. The Generic deſcriptions are tranſlated from REICHARD's edition of the *Genera Plantarum*; but in ſome inſtances, where the original is evidently more adapted to the foreign, than to the Britiſh ſpecies, it was neceſſary to naturalize it to our own country, by additional obſervations, though without the omiſſion of any part of the original text.

Species. The characters of the Species are tranſlated alſo from REICHARD's edition of the *Species Plantarum*: but

but as we have a right to expect that the Flora of a particular country, ſhould be more full and perfect than one that is meant to contain the productions of the whole ſurface of the earth, additional deſcriptions are added to almoſt every Species. Theſe additional deſcriptions are taken from the Flora Suecica, the Flora Lapponica, the Species Plantarum, or the Amœnitates Academicæ of the ſame author; ſo as to include nearly the whole of what that ingenious and ſagacious naturaliſt, or his numerous diſciples have ſaid concerning the native plants of the Britiſh iſles.

After theſe follow original obſervations, the communications of my friends; others from my own notes, and ſometimes extracts and remarks from Leers, Scopoli, Hudſon, Curtis, and other authors of credit, whoſe names are always added, that the reader may judge of the belief due to the authority.

Many more deſcriptive extracts might have been taken from HALLER's *Flora Helvetica*, a work abounding with original and ingenious obſervations; but the liberal uſe which Mr. Lightfoot has made of that excellent author, in the Engliſh annotations to his Flora Scotica, has rendered that labour in a great meaſure ſuperfluous.

Names. At a time, when the names of Plants are already too numerous, nothing leſs than the plea of indiſ-

penſable

ſpenſable neceſſity can juſtify the introduction of new names for any of the Genera: But the intelligent reader will immediately perceive the impoſſibility of forming a compleat Engliſh ſyſtem, without creating a few Engliſh Generic names. Innovations of this kind are never admitted without an abſolute neceſſity; wherever that neceſſity appeared, and the old Engliſh Botaniſts afforded no aſſiſtance, ſuch a name was invented as might be expreſſive of ſome ſtriking characteriſtic of the Plant. To prevent confuſion, the common Engliſh names are ſubjoined to each Species, and where the common name of a Plant cannot be retained for the Genus, it is generally adopted as the trivial name of the Species.

So much for the more ſtrictly *botanical* part; but there are other conſiderations relative to plants, which render this work more generally intereſting, and more extenſively uſeful.

Peculiarities.

The ſtructure of every leaf and every flower, exhibits proofs of Divine Wiſdom: but we are too apt to paſs, without attention, the phænomena which are daily preſented to our eyes. In ſome parts of the vegetable kingdom, there are however ſuch peculiarities of ſtructure, and ſuch amazing contrivances to anſwer the wiſe purpoſes of the Creator, that a total diſregard to them would have been unpardonable: Theſe therefore are mentioned, in a

conciſe manner, yet ſufficiently full to excite the attention of the ingenious.

Sleep of Plants.

Many Plants in the night-time, from a change in the direction of the leaves and leaf-ſtalks, aſſume an appearance ſo totally different from what is uſual to them, that the moſt expert Botaniſt would hardly be able at firſt ſight to recognize his old acquaintance. This is called the SLEEP OF PLANTS; and is noticed under ſome of the Species: as is likewiſe the WAKEING, or opening of flowers. Moſt flowers when once expanded, continue ſo night and day; ſome cloſe againſt rainy weather, but ſome have their ſtated times of opening and cloſing independent of any ſenſible changes in the atmoſphere. Thus the white WATERLILY opens at ſeven in the morning, and cloſes again at four in the afternoon. The yellow GOATSBEARD has long been known to have this property, and is therefore called by the country people, JOHN GO TO BED AT NOON. If kept in a bottle of water, it will be found to open at three or four o'clock in the morning, and to cloſe again before noon.

Wakeing of Flowers.

Oeconomical Uſes.

The Oeconomical Uſes of Vegetables, have been too little attended to by men eminent for Botanical Knowledge. The Theory of the Science, and the Practical Uſes have been too much diſ-joined. At length, however, the generality of mankind are tired with diſputes about Syſtems, and

and the vegetable productions of Europe are pretty well arranged: It is time therefore to think of turning our acquiſitions to ſome uſeful purpoſe. Our own countryman, the ingenious and indefatigable Mr. *Ray*, in his journeys through the different parts of this Iſland, collected a few important facts; but it is to the induſtry of LINNÆUS and his Diſciples, that we are indebted for the greater part of our knowledge upon this ſubject. Mr. *Stillingfleet*, with a zeal truly commendable, attempted to render the Study of the Graſſes ſubſervient to the great purpoſes of agriculture*; but it was impoſſible that his plan ſhould be adopted, whilſt the farmer wanted the means of diſtinguiſhing the different Genera and Species.

Uſes as food.

In years of ſcarcity we are often told, that mankind ſuffer, and ſometimes periſh by famine; but ſurely this would never be the caſe, if men were apprized of the very great number of eſculent Vegetables which grow wild and unnoticed in the fields. Some of them may be uſed with advantage, even amidſt the luxury of plenty; and others may eaſily be gathered in quantities ſufficient to ſupport life, when better or more agreeable food cannot be had. With this view, the part of the plant to be preferred, and the uſual mode of dreſſing it, are mentioned under thoſe Species which have been found moſt ſuitable for food.

* See his Miſcellaneous Tracts.

Uſes for Cattle.

It is a matter of the greateſt conſequence to determine what Species of Plants are preferred by particular Animals; for what is noxious to one Animal is often nutritious to another. Thus the WATER COWBANE is a certain poiſon to cows; whereas the goat browſes upon it greedily, and with impunity. MONKSHOOD kills goats, but does not hurt horſes. Bitter Almonds are poiſonous to dogs, but not to men. PARSLEY is fatal to ſmall birds, while ſwine eat it ſafely; and Pepper is mortal to ſwine, but wholeſome to poultry. Many experiments made with this view by LINNÆUS, and his pupils at *Upſal*, are given in the ſecond vol. of the *Amœnitates Academicæ*. The reſult of thoſe, which relate to the Britiſh Plants, will be found under the particular Species. Many of them were repeated ten and even twenty different times, and with the precautions mentioned below, which are here added for the ſake of thoſe, who have leiſure and opportunity to purſue theſe intereſting enquiries.

When horſes, cows, &c. are ſaid to *eat the plant*, it means that they eat the *Leaves* of the plant. Thus horſes and cows eat a great variety of Graſſes; but they only eat the leaves; for when left to their own choice they never touch the flowering *Stems*. Some Plants are eaten early in the ſpring, whilſt young and tender, but are rejected in the ſummer. The animals choſen for theſe experiments muſt not be overhungry, for an empty ſtomach will compel them to

to feed upon plants which nature never deſigned for them: Nor ſhould they be taken immediately out of the houſe; becauſe after they have lived a conſiderable time upon dry food, they devour greedily every green vegetable which comes in their way. The Plants offered to them ſhould be handled as little as poſſible, for ſome Animals are very nice, and will refuſe the moſt agreeable food, when defiled by ſweaty hands. Throw the Plant in queſtion upon the ground; if the Animals refuſe to eat it, mix it with others which they are known to like, and if they ſtill refuſe it, the point is clear; eſpecially if the experiment be repeated with different individuals.

Uſes for Inſects.

The Catalogue of Inſects which feed upon the different Species of Plants, is confeſſedly very imperfect; but it will ſerve as a foundation for future obſervations of the ſame kind. Perfection in theſe matters is not to be attained at once. In its preſent ſtate it may not be without its uſe. It will be ſeen, that Inſects live chiefly upon the products of the taller Trees, which grow out of the reach of Quadrupedes, ſuch as the ELM, the PEAR, the LIME and the OAK; or upon the thorny and ſtinging Plants which repel the attacks of other Animals, as the ROSE, the THISTLE and the NETTLE; or upon ſuch plants as exiſt every where in great abundance as the GRASSES; or laſtly, upon ſuch Plants as other Animals will not

eat, as the DOCK, the WATERLILY, the FIGWORT and the HENBANE.

Derham ſuppoſes. and with a degree of probability on his ſide; that the Virtues of Plants may be diſcovered by obſerving what inſects feed upon them. Thus the Caſſida viridis feeds upon LYCOPUS and upon MENTHA, which are plants of the ſame *Natural Order*, and poſſeſſed of the ſame Virtues. The Phalæna Sambucaria feeds upon ſeveral of the Rundle-bearing plants of the fifth Claſs, which we know are endued with ſimilar qualities; and the Papilio Cardamine devours the Common LADY-SMOCK and the MITHRIDATE, which are Plants of the ſame *Natural Claſs* and have nearly the ſame properties.

Changes. Many Plants change the appearance of ſome of their parts, to accommodate certain Inſects with convenient lodgings: Some of the moſt remarkable of theſe changes are noticed.

Uſes in the Arts. It is beyond a doubt, that the Inhabitants of different countries, and artiſts of different kinds, know how to apply a number of Plants to anſwer a variety of purpoſes. Such of theſe as could be ſelected from good authorities, or obtained from private information, are ſubjoined in their reſpective places.

Medical Virtues. Many people will be ſurprized to find ſo little ſaid upon the Medical Virtues of Plants; but thoſe who

who are beſt enabled to judge of this matter, will perhaps think, that the greater part of that little might have been omitted. The ſuperſtition of former ages, operating upon the ignorance of mankind, gave riſe to miracles of every denomination; and the faſhion of combining a great variety of ingredients with a deſign to anſwer any particular purpoſe, rendered the real efficacy of any of them extremely doubtful. The dreadful apprehenſions which men formerly entertained of POISONS, made them fearful of employing ſubſtances that were capable of doing miſchief; and therefore they rejected thoſe which were moſt likely to do good. A number of Vegetables fit only for food, were ſuppoſed capable of producing the greateſt alterations in the human body; and at length almoſt every common Plant was eſteemed a cure for almoſt every diſeaſe. In this ſituation of things, little advantage can be reaped from the experience of former times: we ſhall ſooner attain the end propoſed, if we take up the ſubject as altogether new, and rejecting the fables of the antient Herbaliſts, build only upon the baſis of experiments well conceived and accurately executed. To facilitate the work as much as poſſible, the following obſervations are added.

Certain Plants, capable of producing ſudden and remarkably deleterious effects upon Animal Bodies, are called Poiſonous: but Poiſons in ſmall doſes are the beſt medicines; and uſeful medicines

in too large doſes are poiſonous. Even the moſt innocent aliments, in certain quantities, are noxious.

We muſt not diſdain to learn the Medicinal uſes of Plants from the meaneſt of Mankind; eſpecially where they uſe their remedies in an uncompounded form; for what are thoſe celebrated medicines which we import from the *Indies* at a conſiderable annual expence, as Ipecacuanha, Contrayerva and Sarſaparilla, but remedies, by long experience, approved amongſt the common people in the countries from which we purchaſe them?

Plants of the ſame *Genus* have ſomething of the ſame Virtues: Thoſe of the ſame *Natural Order* have ſtill a nearer reſemblance; and thoſe of the ſame *Natural Claſs* the neareſt of all. Theſe properties are remarked in the Introductions to the Claſſes.

Plants having honey cups detached from the petals are generally poiſonous, as the HELEBORE, the COLUMBINE and the DAFFODIL.

Plants with a milky juice are frequently poiſonous; as ſome of the MUSHROOMS, the SPURGES, and CELANDINE. Others are ſo but in a leſs degree, as HAWK-WEED, GOATS-BEARD, SUCCORY and LETTUCE.

Plants

Plants with a ſimple jointed ſtem, ſword-ſhaped leaves, and fleſhy roots, are generally acrid: thus the juice of the *yellow* FLAG excites vomiting and ſneezing.

The pleaſant-taſted and ſweet-ſmelling Plants are generally wholeſome.

Plants which have an ungrateful ſmell produce diſagreeable effects, as the ELDER, and many of the FUNGUSSES. Thoſe which ſmell nauſeouſly, as the HENBANE, are generally poiſonous.

Plants which are bitter to the taſte, are ſtomachic, and deſtroy acidity; as GENTIAN, and CENTAURY.

Acid Plants abate heat and thirſt, and reſiſt putrefaction; as the fruit of the CURRANT, or the leaves of the WOODSORREL.

Aſtringent Vegetables may be diſcovered by the taſte.

A red colour, indicates acidity; a yellow one, bitterneſs, or acrimony.

Plants in dry ſeaſons, and growing in dry ſituations, have moſt taſte. Thus the aromatic Plants, as THYME, SAGE and MARJORAM are by far the beſt in dry ſoils; and every one knows the inſipidity of Fruits in wet ſoils and wet ſeaſons.

Plants

Plants which grow in watery ſituations are often corroſive; as CROWFOOT and WATER-LILY. But the corroſive aquatic Plants loſe much of their acrimony when cultivated in a dry ſoil: Of this, the Garden CELERY is a ſufficient example.

ROOTS are in greateſt perfection, when the leaves firſt begin to put forth.

LEAVES are beſt gathered, when the bloſſoms are beginning to open.

FLOWERS are in greateſt perfection, when moderately expanded.

SEEDS muſt be gathered, when they have attained their full ſize and are nearly ripe.

BARKS are beſt in the winter, before the ſap riſes.

Different parts of the ſame Vegetable often manifeſt very different properties: Thus the leaves of WORMWOOD are bitter, whilſt the roots are aromatic. The Seed-veſſels, or Heads of POPPIES are narcotic, but the Seeds have no ſuch quality.

It will readily be allowed, that theſe rules are by no means univerſal: The exceptions to moſt of them are numerous. We muſt be content to conſider them, as rude and imperfect out-lines, which the induſtry of future ages will correct and compleat.

ADVER-

ADVERTISEMENT,

BY THE

Author of the References to Figures.

MY Plan in the new references which I here offer to the public, has been to afford the inveſtigating botaniſt as full a collection of references to figures, as the ſize of the work would admit. It is not in every one's power to become poſſeſſed of a complete collection of figures, and thoſe who are, cannot eaſily tranſport them to ſituations in which their poſſeſſor might wiſh to conſult their contents. Different herbals may, however, in moſt places be met with, though perhaps not the individual one referred to in the more portable works which he may have made the companions of his journey. On this account, I have thought I might

I might perform no unacceptable office to the practical botaniſt, to undertake a review of all the figures to which I could obtain acceſs, and to preſent him in as ſmall a compaſs as poſſible, the reſult of my examinations, in a collection of *all ſuch figures, placed in the order of their ſuppoſed comparative excellence.* By this means, I flatter myſelf, he will be enabled to derive information from any of the old herbals. And if poſſeſſed of a complete collection of botanical figures, it is poſſible that amidſt ſo large a number he might be at a loſs which to conſult, or in which of them he ſhould confide as the moſt faithful repreſentation of the plant in queſtion. He may conſult all in his poſſeſſion; and then I doubt not, if accuſtomed to the inſpection of plants and figures, he will form a very juſt judgment. But if unexperienced, or preſſed for time, I flatter myſelf that mine will not at leaſt prove unacceptable. Theſe opinions I ſubject to the examination of the experienced botaniſt, without preſuming to inſtruct him. From ſuch I ſhall be happy to receive inſtruction, and to profit by it, with due acknowledgments, in caſe of a future edition.

I have inſerted no figures which I have not examined and compared, unleſs the contrary is expreſſly noticed. In forming the above judgment I have endeavoured to abſtract myſelf from the glare of ſplendid colouring, and the leſs obtruſive, though

though not leſs deceitful finiſh of the engraver, and to conſider with impartiality, which of the figures may have the merit of giving moſt exactly the true genius and habit of the plant. The reader muſt not therefore be ſupriſed to obſerve a a wooden cut from the old herbals, ſometimes to precede an engraving on copper in the *Flora danica*, eſpecially in that part of it which has appeared ſince the unfortunate affair of Struenſee, occaſioned the removal of the ingenious OEDER from the direction of that work.

Theſe references may alſo be productive of ſome benefit to ſcience, in pointing out to the ingenious artiſt, who employs his pencil in botanical works, what plants have been already well figured, and what ſtill remain to be delineated. There are ſeveral works which I could mention, where the number of new figures are exceedingly few, and the practical botaniſt to poſſeſs theſe, is obliged to purchaſe a great number of others which have before appeared in former publications, JACQUIN, PALLAS, and DICKSON, are examples of a juſt plan. While ſo many plants, natives of theſe iſlands, and not comprehended within the limits of the Flora Londinenſis, or cultivated in our botanic gardens, remain un-illuſtrated by accurate engravings, the artiſt cannot complain of a want of ſubjects for his pencil. I could wiſh indeed, that ſuch deficiencies were ſupplied under the direction

of

of an experienced botaniſt, ſuch as our rivals in ſcience poſſeſs, in the perſon of M. L'Heretir, or the artiſts of Nuremberg, in the excellent Schmidel. But if thoſe who ought to be the patrons of ſuch works, leave them to be directed by artiſts, every true lover of botanical ſcience ſhould do, what at leaſt he can, to direct their labours, and render them as conducive as poſſible to the advancement of ſo uſeful and pleaſing a branch of knowledge.

A reviſion of the references to figures, appeared to me to be very much wanting. In the 2 *firſt editions* of Ray's *Synopſis*, as alſo in all his other works, the names of preceding authors are given but without any reference to the number of the volume or page. In the 3*d edition*, publiſhed in 1724, this deficiency was ſupplied by the ingenious editor Dillenius.

The references of Dillenius, were given in the *Flora Anglica* of Mr. Hudson, but with the omiſſion of the references to the firſt edition of Gerard, to which Dillenius in general, ſeems very juſtly to have given the preference, and the ſynonyms of Johnſon's edition, generally quoted by the title of *Gerardus emaculatus*, ſubſtituted in their place. In all theſe citations, there are no marks by which the reader can be aſſured whether the plant cited be figured there or not, which neceſſarily occaſions him frequent diſappointment in his reſearches.

Mr.

Mr. LIGHTFOOT in his *Flora Scotica*, has given us references to figures, evidently the reſult of actual obſervation. But they are confined to the plants of Scotland and the Hebrides, and the 2*d edition of Ger.* ſeems the only one of the older authors whom he refers to.

In the laſt edition of the *Species plantarum*, publiſhed by REICHARD, under the title of *Syſtema plantarum*, there are many new references to figures, but they are merely tranſcripts from the authors cited.

But figures, without a ſyſtem to conduct the reader to them, are almoſt uſeleſs, and there are ſome plants which have ſo great a reſemblance to each other in their external form, that even when growing, they are with difficulty diſtinguiſhed. The ſtructure however of their minuter parts, frequently affords unambiguous marks of diſtinction. Hence the utility of thoſe ſhort characteriſtic deſcriptions, called by Linnæus, the *ſpecific character*. RAY had the merit of eſtabliſhing Claſſes on botanical principles, and TOURNEFORT that of diſtinguiſhing Genera by ſtill more exact modes of diſcrimination; but it was left for LINNÆUS to diſtinguiſh ſpecies by certain and unambiguous characteriſtics drawn from the ſhape, ſituation, and proportion of the parts. MICHELI indeed had made ſome advances towards this mode of diſcrimination;

mination; but the marks which he fixed upon, were frequently ambiguous, and not ſufficiently characteriſtic, LINNÆUS after the example of MICHELI, conſidered theſe characteriſtical deſcriptions as the name of the plant, and he even laid down a rule that they ſhould not conſiſt of more than 12 words. But it being diſcovered that ſuch names could with difficulty be retained in the memory, or employed in converſation, and as genera were already diſtinguiſhed by a ſingle name, Linnæus was inſenſibly led to denote the ſpecies of each genus by an epithet expreſſive of the particular ſpecies, or a name rendered familiar by long uſage. Theſe he called by the modeſt title of *Nomina trivialia*: or *trivial names*. But they were ſoon found of great importance in facilitating the diffuſion of botanical knowledge, and they have been adopted by almoſt all intelligent botaniſts. Some indeed, who have in general adopted them, do not appear to have been fully ſenſible of their value, and of the miſchiefs which muſt neceſſarily ariſe from arbitrarily changing them. Many of the words of the Engliſh language might be rendered more harmonious, we might latiniſe them after the manner of Johnſon, or italianiſe them, on the model exhibited by the author of Letters on literature, but were ſuch innovations to become general, our beſt writers would be robbed of all the graces of ſtyle, and Gray, and Gibbon, become in a few years, as obſolete as Chaucer. No botaniſts of the

Linnæan

Linnæan ſchool, have been ſo faulty in this reſpect as thoſe of our own country. Were they men of inferior talents that committed theſe faults, I ſhould only remark, how much eaſier it is to change a name than to diſcover the eſſential character of a new genus or ſpecies. But the faults which I complain of, originate, I am perſuaded, not from a love of ſelf-diſtinction, but from not ſufficiently attending to the importance of poſſeſſing an eſtabliſhed nomenclature. Where ſpecies have been referred to wrong genera, or genera eſtabliſhed on erroneous principles, changes in the generic name muſt inevitably take place, but the *trivial*, or *ſpecific name*, as it ought rather to be called, ſhould if poſſible remain unaltered. Mr. HUDSON in his 2d edition, has changed *Ononis arvenſis* of Linnæus and the 1ſt edition of his own work to *O. inermis*; *Alopecurus monſpelienſis* and *paniceus* to *ariſtatus*; *Agroſtis capillaris* to *polymorpha*; *Melica nutans* to *montana*, becauſe it had been called Gramen avenaceum locuſtis rubris *montanum* by C. Bauhine; *Bromus mollis* to *polymorphus*, *arvenſis* to *erectus*, and *madritenſis* to *muralis*; *Paſtinaca ſativa* to *ſylveſtris*; *Agaricus virens* of Scop. & Schaeff. to *viridis*; *Carduus acanthoides* to *criſpus*, and *criſpus* to *acanthoides*, *Sparganium erectum* to *ramoſum*, &c. Mr. LIGHTFOOT has changed *Serapias longifolia* to *paluſtris*; and Mr. CURTIS, in ſpite of all the arguments I could urge to him at the time, changed *Boletus rugoſus* of Jacq. to *lucidus*; and *Agaricus crenulatus*

of Muller to *plicatilis*, though Mr. Lightfoot had already given the name of *plicatus* to a ſpecies of the ſame genus. When a judicious botaniſt has communicated to the public a new ſpecies, and has diſtinguiſhed it by a name conformable to the principles of the Linnæan nomenclature, it would prevent much confuſion if ſucceeding obſervers were to adopt the name already given, and be but a proper compliment to the diſcoverer of a new ſpecies. Mr. Hudſon, and Mr. Lightfoot, are not to blame for the many ſpecies to which they have given different names, as their reſpective works appeared about the ſame time, but it could be wiſhed that botaniſts, eſpecially in the ſame kingdom, would more freely communicate ſuch plants as appear new to them, and which they propoſe to name. But I truſt the learned, candid, and ingenious poſſeſſor of the herbarium, library, and manuſcripts of the two Linnæi, will be the means of preventing the evils here complained of. Senſible as I am of the importance of figures in the preſent ſtate of botany; I am inclined to believe, when the Linnæan principles of diſcrimination ſhall have been carried to their full extent, that ſpecies, as well as genera, may be diſtinguiſhed in ſo clear and unambiguous a manner, that figures may be rendered of far leſs importance, and their uſe principally confined to the Fungi, Lichens, and Medicinal plants, which laſt it is of importance to know in every ſtage of their growth. Whatever occurred

occurred to me during the courſe of the work, that could tend to the improvement of the *ſpecific characters*, or to facilitate the inveſtigation of plants, has been added. Where any circumſtance appeared worthy of forming a part of the character itſelf, it has been given alſo in Latin at the bottom of the page, but where it was only neceſſary to correct parts of the ſpecific character, ſuch obſervations have been placed immediately after it, with a view to facilitate the labour of inveſtigation, but printed in italics, to diſtinguiſh mere corrections from circumſtances eſſential to the ſpecific character.

Such are the views which have engaged my attention in the part which I have taken in the preſent edition of the Botanical Arrangement. No phyſician who has felt the wiſh to make himſelf maſter of the diſcoveries made in his profeſſion, during the laſt and preſent century, but muſt have become fully ſenſible of the importance of botanical knowledge, and it is Linnæan botany alone which can tranſmit with certainty to our poſterity, thoſe diſcoveries which the preſent age has made of the powers of vegetable remedies. For want of it, we have been but little benefitted by thoſe of the Greek phyſicians, and we cannot expect to read their obſervations on the materia medica with any advantage, till a botanical voyage to Greece and

the Archipelago, propoſed by the late Mr. Stillingfleet, ſhall find a patron, and introduce into our gardens the plants uſed in medicine by the Greeks.

KIDDERMINSTER,
10th Auguſt, 1787.

ABBREVIATIONS.

EMPAL. Empalement.
BLOSS. Bloſſom.
POINT. Pointal.
S. VESS. Seed-veſſel.
Capſ. Capſule.
ESS. CHAR. Eſſential Character.

B. *Barren flowers*, or flowers with only Chives.
F. *Fertile flowers*, containing pointals, and producing Seed.
H. *hermaphrodite flowers*, or flowers containing both Chives and Pointals.

A. Annual, enduring only for 1 year, or a ſhorter time.
B. Biennial, enduring for 2 years.
P. Perennial, enduring many years.
S. Shrub.
T. Tree.

CATA-

CATALOGUE *of* BOTANICAL WORKS

CITED in this EDITION,

By the AUTHOR of the REFERENCES.

N. B. (1) Roman numerals expreſs the number of the volume, faſciculus, or ſection, in which the figure is to be found.

(2) Arabic numerals ſignify in works of plates, the number engraved on the plate referred to, and in printed books, the page where ſuch figure is to be found,

(3) A ſecond ſet of Arabic figures, marks out the particular figure referred to, in the plate or page already cited.

(4) *abr.* ſignifies abridged; *cop.* copied; *repr.* reprinted. The blocks from which the wooden cuts of the old authors as Dodonæus, Lobel, and Cluſius were taken, being the property of Plantin of Antwerp, their common bookſeller, the uſe of theſe blocks was purchaſed by Johnſon, the editor of Ger.em.—Theſe authors I have generally placed in this order, *Cluſ.*—*Dod.*—*Lob.*—but in the more common plants, Dodonæus ſeems to have been the original publiſher, in the more curious ones, Cluſius.

Act. upſ. Nova acta reg. ſocietatis ſcientiarum Upſalienſis. Tom. I. 1773.—II. 1777.—III. 17

Adanſon. Adanſon familles des plantes, Tomes II. 8vo.

Aldrovandi. Dendrologia. fol. 1671.

Allion. ſtirp. ped. Allionii rariorum Pedemontii ſtirpium ſpecimen I. 4to. 1755.

Alpin. Ægypt. 1. Alpini hiſtoria Ægypti naturalis, pars I. 4to. 1735.

Alpin. Ægypt. Veſling. Alpini hiſtoria Ægypti naturalis, pars II. 4to. 1735.

Amman. Ammani ſtirpium rariorum in imperio Rutheno ſponte provenientium icones & deſcriptiones. 4to. 1739. [In the ſtyle of Gmelin ſibir.]

Amoen. acad. Amoenitates academicæ, ſeu diſſertationes variæ phyſicæ, medicæ, botanicæ. Tomi VII. 1749.—1769. 8vo. [Academical diſſertations publiſhed under the auſpices of Linnæus, who either compoſed them, or ſupplied their authors with the neceſſary materials, as is the practice in the foreign univerſities.]

Aſſo. Aſſo ſynopſis ſtirpium Arragoniæ. 4to. 1779.

Barr. Barrelieri plantæ per Galliam Hiſpaniam & Italiam obſervatæ, iconibus aeneis expreſſæ. fol. 1714.

Baſt. Baſteri opuſcula ſubſeciva, 4to. Tom. I. 1762.—II. 1765.

Batſch.

Batſch. Elenchus fungorum, 1783. 4to.

Battar. Battarræ fungorum agri Ariminenſis hiſtoria, 4to. 1759.

Beleval, opuſcules (publiſhed by M. Brouſſonett, F. R. S. and Academy of Sciences at Paris, and perpetual ſecretary to the Roy. Soc. of Agriculture of Paris.) 1785. 8vo. 5 plates.

Bellon. Bellonii obſervationes in Cluſ. exot.

Bergen dealóïde. Francof. ad Viadr. 1753. 4to.

Bergen flora Francofurtana. 1750. 12mo.

Bergii materia medica. 8vo.

Berkenhout's clavis anglica linguæ botanicæ Linnæi, or botanical lexicon. 1766. 12mo.

——— Outlines of the natural Hiſtory of Great Britain and Ireland. Vol. 2d. 1770. 8vo.

Blackſt. Blackſtone ſpecimen botanicum quo plantarum plurium rariorum Angliæ indigenarum loci natales illuſtrantur. 12mo. 1746. [Plates 2.]

Blackſt. cat. Blackſtone catalogus plantarum circa Harefield. 1737. 8vo.

Blackw. Herbarium Blackwellianum emendatum et auctum a Trew. Tom. III. fol. 1757.—Tom. IV. 1760.—Tom. V. 1765.—Herbarii Blackwelliani auctarium a Ludwig. Tom. VI. 1773. [The original, of which this is a copy, was the work of Mrs. Elizabeth Blackwell, who executed this very uſeful, and in many reſpects, excellent work, as a means of ſupporting her huſband, then confined for debt.]

Blair's botanic eſſays. 8vo. London. 1720.

Boccon rar. Boccone icònes & deſcriptiones rariòrum plantarum Siciliæ, Melitæ, Galliæ, & Italiæ. 4to. Oxon. 1674. [Figures characteriſtic, but ſmall, and apparently from dried ſpecimens.]

Boehm. Boehmeri, flora Lipſiæ indigena. 1750. 8vo.

Boerh. Boerhaavii index alter plantarum quæ in horto academico Lugduno Batavorum aluntur. pars I. [Plates 12.]—II. [Plates 27.] 1720. 4to.

Bolt. Bolton's filices Britannicæ, or hiſtory of Britiſh proper Ferns. 1786. 4to. by James Bolton of Halifax. [Neat etchings, coloured, but ſome better figured before, and many on a reduced ſcale; a practice reprobated by all good modern botaniſts. Plates of Polypodiums and the larger Ferns, ſhould be of the larger folio ſize.]

Bot. Arr. Withering's botanical arrangement. ed. I. 2 Vols. 8vo. 1776.

Breyn. cent. Breynii exoticarum aliarumque minus cognitarum plantarum centuria I, 1678. fol.

Breynii pr. Breynii prodromus fàſciculi rariorum plantarum. II. ordus. 1689. fol.

Britiſh Herbal 4to. [Figures, ſome of the laſt I believe, which have been cut in wood.]

Broughton enchiridion botanicum. 12mo. 1782.

Bryant. Bryant's hiſtorical account of 2 ſpecies of Lycoperdons. 1783. 8vo.

Bulliard. Plantes veneneuſes de la France, & Champignons de la France. par M. Bulliard. fol. [Taken off in colours. The Muſhrooms pleaſing, the reſt too much reſembling tapeſtry figures.]

Buxb.

Buxb. Buxbaumii plantarum minus cognitarum centuria. I.—V. 4to, 1728.—1730.

Cam. epit. Camerarii de plantis epitome Matthioli novis plane & ad vivum expreſſis iconibus, &c. 1586. 4to.

Cam. hort. Camerarii hortus medicus & philoſophicus. 1588. 4to. [Plates 47.]

Catalogus plantarum horti medici, Oxonienſis. 12mo. 1648.

C. B. pin. Caſpari Bauhini pinàx theatri botanici. 1623. 4to. [A collection of the names of all preceding authors.]

C. B. pr. Caſpari Bauhini prodromus theatri botanici. 1620. 4to. [Many figures from Cluſ. and others. HALL.]

C. B. th. Caſpari Bauhini theatri botanici ſive hiſtoria plantarum. Liber. I. 1658. fol.

Chabr. Chabræi ſtirpium ſciàgraphia & icones. 1677. fol. [A republication of the figures of *J. B. hiſtoria* with names and a ſhort account of the plants.]

Chenal. De la Chenal obſervationes botanico-medicæ. 1776. 4to.

Cluſ. Cluſii rariorum plantarum hiſtoria. 1601. fol. [An original writer. He continued publiſhing from 1576, to 1605. He died in 1609, at the age of 84. Figures 1166.]

Cluſ. exot. Cluſii exoticorum. libr. x 1605. fol. [Figures 237.]

Cluſ.

Cluſ. app. alt. Ad rariorum plantarum hiſtoriam Cluſii altera appendix [with the former figures 19.]

Cluſ. cur. Cluſii curæ poſteriores. 1611. [with Cluſ. exot. Figures. 41.]

Col. ecphr. Columnæ minus cognitarum rariò-rumque noſtro coelo orientium ſtirpium εκφρασις. 1616. 4to. [Figures 203.]

Col. phytob. Columnæ Φυτο βασανος. 1744. 4to. [The firſt botanical engravings on copper. Figures 39.]

Crantz. crucif. Crantz claſſis cruciformium emendata. 1769. 8vo.

Crantz. Crantz ſtirpium Auſtriacarum partes VI. 1769. 4to.

Crantz. umb. Crantz claſſis umbelliferarum emendata, 1767. 8vo.

Curt. cat. Curtis's catalogue of Britiſh medicinal, culinary, and agricultural plants, cultivated in the London Botanic garden, 1783. 12mo.

Curt. Curtis's Flora Londinenſis, or plates and deſcriptions of ſuch plants as grow within the environs of London. 4 Vols. and 10 No's. of the 5th Vol. in all 58 No's. 1776, to 1787. fol. [An admirable work, but the paper on which the plates are taken off ſhould be better, and compleat deſcriptions are ſometimes wanting.]

Curt. obſ. Obſervations contained in a Catalogue of certain plants growing wild, chiefly in the environs of Settle, Yorkſhire, obſerved by W. Curtis in a 6 weeks botanical excurſion from London

London, made at the requeſt of J. C. Lettſom, M. D. F. R. S. &c. in the months of July and Auguſt, 1782,—and publiſhed in the Fl. Lond. No's. 45, and 48.

Cutl. An account of ſome of the vegetable productions naturally growing in the neighbourhood of Ipſwich in New England, botanically arranged, by the Rev. Manaſſeh Cutler, fellow of the American Academy and Medical Society, and member of Philoſ. Society at Philadelphia. In the Memoirs of the American Academy of Arts and Sciences. Vol. I. from p. 396 to p. 493. Boſton, 1785. 4to.

Dil. elth. Dillenii horti Elthamenſis plantarum rariorum icones & nomina. Lugd. Bat. 1774. fol. [Figures 417, drawn and etched by himſelf. *Hall.*]

Dill. Dillenii hiſtoriâ Muſcorum. 1763. 4to. [Figures of near 600 ſpecies drawn and etched by his own hand.]

Dickſ. Dickſon faſciculus plantarum cryptogamicarum Britanniæ. 1785. 4to.

Dod. Dodonæi ſtirpium hiſtoria pemptades ſex ſive libri xxx. 1616. Fol. [Figures 1330, ſome from Cluſ. and Lob.—He began publiſhing in 1552, and died in 1585.]

Eſchenboch obſervationes botanicæ. Lipſiæ 1784. 4to.

Evelyn, ſee Hunter.

Fabric. helm. Fabricii enumeratio methodica plantarum horti medici Helmſtadienſis. 1776. 12mo.

Fl. dan. Icones plantarum ſponte naſcentium in regnis Daniæ & Norvegiæ in ducatibus Sleſvici & Holſatiæ, &c. ad illuſtrandum opus Floræ danicæ nomine inſcriptum. Tom. V. Faſciculi xv. 1766.—1782. fol. The 3 firſt volumes by Oeder, and by far the beſt; the 2 laſt by Muller.

Fl. lapp. Linnæi flora Lapponica exhibens plantas per Lapponiam creſcentes. 1737. 8vo. [Figures characteriſtic.]

Fl. Roſſ. Flora Roſſica. Petropoli. 1784. Folio.

Fl. ſuec. Linnæi flora Suecica, exhibens plantas per regnum Sueciæ creſcentes. ed. II. 1755. 8vo. [Plate 1.]

Fuchſ. Fuchſii de hiſtoria ſtirpium comentarii, inſignes, &c. 1542. fol. [Outlines well done for the age.]

Garid. Hiſtoire des plantes qui naiſſent aux environs d' Aix, & dans pluſieurs autres endroits de la Provence; par M. Garidel. 1715. fol. [Fig. 101.]

Gars. Les figures des plantes & des animaux d' uſage en medicine, decrits dans l' natiere medical de M. Geoffroy, deſſinés d' après nature par M. de Garſault. Tomes V. (1764.) 8vo. [Figures 643, from nature. HALL.]

Gen. pl. Linnæi genera plantarum, edente Reichard. Francof. 1778. 8vo.

Ger.

Ger. Gerard's hiſtorie of plants. 1597. fol. [Johnſon the editor of the 2d. edition informs us, that the ground-work of this work was a M.S. tranſlation of Dodonæus by Dr. Prieſt, but to give it the air of an original, diſpoſed in the method of Lobel, then reſident in England, and botaniſt to the King, and illuſtrated by figures taken from the blocks of Tabernæmontanus procured from Frankfort, by Mr. Norton, who was the common patron of Prieſt and Gerard. This will explain why I ſometimes ſay of a fig. *reprinted* in *Ger. em.* & *cop.* in *Park* & *Ger.* (ed. I.) Notwithſtanding this, Gerard had the hardineſs to ſpeak of Prieſt and himſelf, in the following terms, "And ſince "that Dr. Prieſt one of our London College "hath (as I heard) tranſlated the laſt edition of "Dodonæus, and meant to publiſh the ſame, but "being prevented by death, his tranſlation like-"wiſe periſhed. Laſtly myſelf have preſumed to "ſet forth unto the view of the world the firſt "fruits of *theſe myne own labours.*" Haller ſays there are about 16 original figures.]

Ger. em. Gerard's herball, or generall hiſtorie of plantes, very much enlarged and amended, by Thomas Johnſon. 1636. fol. [Figures 2821 from the blocks of Dodonæus, Lobel, and Cluſius, with ſome original ones. HALL.]

Ger. prov. Gerardi (Ludovici) flora, Gallo Provincialis. 1761. 8vo. [Engravings too delicately neat.]

Germ. Syn. Vollſtandiges ſyſtematiſches verzeichniſz aller gewachſe Teutſchlandes, &c. Erſter Baud. Leipzig 8vo. 1782. [An induſtrious collation of the ſynonyms of the plants of Germany. It has merit in the novelty of the arrangement, and has proved peculiarly uſeful to me in affording as far as the middle of the claſs Pentandria, a reference to the pages of the works of the older botaniſts, their names only being given in the Pinax of C. Bauhine. I am ſorry however, it is not in my power to praiſe the author for the detection of old errors, or the diſcovery of many new facts.]

Giſek.—or *Gies.* Giſeke & Schulze icones plantarum. 1777. fol. [They are rather ectypa, or impreſſions taken from living plants, coloured, but ill done.]

Giſeke. Index Linnæanus in Plukenetii opera, & Dillenii hiſtoriam muſcorum. 1779. 4to.

Gled. Gleditſchii methodus fungorum. 1753. 8vo.

Gleditſchii ſyſtema plantarum Berolini. 1764. 8vo.

———— Conſideratio Ekieriſeos Siegesbockianæ. Berol. 12mo. 1745.

Gmel. Gmelin flora ſibirica, ſive hiſtoria plantarum Sibiriæ. Tomi IV.—1747.—1749.—1768. 1769.—4to. [Figures hard and unexpreſſive, apparently from dried ſpecimens.]

Gmel. fuc. Gmelin (Samuel Gottlieb) hiſtoria fucorum. 1768. 4to.

Gmel. tub. Gmelin (J. Fred.) enumeratio ſtirpium agro Tubingenſi indigenarum. 1776. 12mo.

Gorter.

Gorter. ingr. Flora Ingrica ex ſchedulis Stephani Kraſcheninnikow confecta & propriis obſervationibus aucta a Dav. de Gorter. 1761. 8vo.

Goüan. fl. Goüani flora Monſpeliaca. 1765. 8vo.

Goüan. hort. Goüani hortus regius Monſpelienſis. 1762. 8vo.

Goüan. ill. Goüani illuſtrationes & obſervationes botanicæ. 1773. fol.

Gunn. Gunneri flora Norvegica. Pars I. & II. 1766. 1772. fol. [Figures good.]

Hagen tentamen hiſtoriæ Lichenum. 1782. 8vo.

Hall. biblio. Halleri bibliotheca botanica. Tomi II. 1771, 1772. 4to. [The index ſhamefully incorrect.]

Hall. gott. Halleri enumeratio plantarum horti regii & agri Gottingenſis. 1753. 12mo.

Hall. opuſc. Halleri opuſcula botanica. 1749. 12mo.

Hall.—or *Hall. hiſt.* Halleri hiſtoria ſtirpium indigenarum Helvetiæ. Tomi III. 1768. fol. [The plates re-impreſſions, of thoſe of the *ſtirpium*. A great man but I am afraid too jealous of the fame of his co-temporary Linnæus, to adopt his improvements in the language of botany, and in the diſcovery of trivial names. An accurate and careful obſerver, his knowledge of ſpecies very extenſive, and ideas of genera formed on a cautious and exact compariſon of the ſtructure of parts.]

Hall.

Hall. ſtirp. Halleri enumeratio methodica ſtirpium Helvetiæ indigenarum. Tomi II. 1742. fol. (Figures 77.)

Happ. Happé icones plantarum cryptogamiæ. Decuria I. II. III. fol. 1782.

Hartmann primæ lineæ inſtitutionum botanicarum. 1766. 8vo.

Hedw. hiſt. Hedwigii fundamentum hiſtoriæ muſcorum frondoſorum. Pars I. & II. 4to. Lipſiæ. 1782.

Hedw. ſtirp. Cryptogamicæ Faſc. I. II. Lipſiæ, 1785, 1786.

Hedw. theoria. Generationis & fructificationis plantarum cryptogamicarum. 4to. Petropoli. 1784.

Herm. hort. Hermanni horti academici Lugduno-Batavi catalogus. 1687. 8vo. (Figures 107.)

Herm. par. Hermanni paradiſus Batavus. 1698. 4to.

Hiſt. de l' Academ. Hiſtoire de l' Academie Royal des Sciences. Paris.

H. ox. Moriſoni plantarum hiſtoriæ univerſalis Oxonienſis pars II. 1680. fol.—pars III. quam explevit & abſolvit Jacobus Bobartius. 1699. fol. —(Figures 3586. The 1ſt part intended to comprehend trees and ſhrubs, was never publiſhed. The references are made to ſections, plates, and figures. The original figures chiefly by Bobart, and good.)

Hoffm. Hoffmanni enumeratio Lichenum, Faſc. I. II. III. 1784, 1785, 1786. 4to.

Hort.

Hort. upſ. Linnæi hortus Upſalienſis; exhibens plantas exoticas horto Upſalienſis academicæ a ſeſe illatas. 1748. 8vo. (Plates 3.)

Hudſ. Hudſoni flora Anglica. ed. II. Tomi II. 1778. 8vo.—*ed. I.* 1762.

Hunt. evel. Sylva, or a diſcourſe on Foreſt Trees, by J. Evelyn, with notes by A. Hunter, M.D. 1776. 4to. ed. I.—1786. 4to. 2 vols. ed. II. [Figures by J. Miller, with the parts of fructification.]

Jacq. enum. Jacquin enumeratio ſtirpium plerarumque quæ ſponte creſcunt in agro Vindobonenſi, montibuſque confinibus. 1762. 12mo.

Jacq. fl. Jacquin flora Auſtriaca ſive plantarum ſelectarum in Auſtriæ Archiducata ſponte creſcentium icones. Tomi V. 1773, &c. fol. [Admirable, and wanting nothing but the parts of fructification apart.]

Jacq. hort. Jacquin hortus Vindobonenſis. Tomi III. 1770, 1772, 1774. fol.

Jacq. miſc. Jacquin miſcellanea Auſtriaca. Tomi II. 1778, &c. 4to.

Jacq. obſ. Jacquin obſervationes botanicæ. Partes IV. 1764, to 1771. fol.

Imit. Imitated.

J. B. Hiſtoria plantarum univerſalis auctoribus Johanne Bauhino & Cherlero, quam recenſuit & auxit Chabræus, juris vero publici fecit Graffenried. Tomus I. 1650. (*a*) in the references ſignifies the firſt part conſiſting of p. p. 602.—(*b*) the 2d part of p. p. 440.—Tom. II. 1651.—Tom. III. (*a*) or the

first part consisting of p. p. 212, (*b*), or 2d part of p. p. 882. [Containing in all, according to Trew in Blackw. 3577 figures.] Fol.

Jonst. Jonstoni dendrographia sive historia naturalis de arboribus & fructicibus. 1662. fol.

Kolpin floræ Gryphicæ supplementum. 1769. 12mo.

Kram. Kramer elenchus vegetabilium & animalium Austriæ inferioris. 1756. 8vo.

Lammersdorff de Filicum fructificatione. 1781. 8vo.

Leers flora Herbonensis exhibens plantas circa Herbonam Nassoviorum crescentes. 1775. 8vo. [The minuter parts admirably done, but the larger parts not equally characteristic.]

Lee's introduction to Botany. 8vo.

Leyss. Leyseri flora Halensis. 8vo. ed. ult. 1783.

Lightf. Flora Scotica, or a systematic arrangement of the native plants of Scotland and the Hebrides, by the Rev. John Lightfoot, A. M. 2 vols. 1777. 8vo. [Little has been extracted from this valuable work which does so much credit to its author and patron, it being accessible to the English reader.]

Linn. Linnæus's works.

Linn. amoen. acad.—fl. lapp.—fl. suec.—gen. pl.—hort. upsl.—mant. pl.—mat. med.—sp. pl.—syst. nat.—syst. pl.—phil. bot. See the separate articles of *amoen. acad.* &c.

Linnæi fundamenta botanica, 1747. 8vo.

Linnæi bibliotheca botanica, 1747. 8vo.

Linnæi claſſes plantarum, 1747. 8vo.

Linnæi termini botanici a Hope, editi. Edinb. 8vo.

———— Rotheram editi, 1779, 12mo.

———— Giſeke, 1781. 8vo.

Linn. (*the ſon,*) or *ſuppl.* Linnæi (filii) ſupplementum plantarum. 1781. 8vo.

Linn. (*the ſon*) *dec.* Linnæi (filii) decas plantarum rariorum horti Upſalienſis, decas I. & II. 1762, 1763. fol.

Linn. (*the ſon*) *faſc.* Linnæi (filii) plantarum rariorum horti Upſalienſis faſcic. I. fol. [Theſe works are characteriſtic outlines and pleaſe me much. I wiſh ſuch were more common, and if coloured would I think generally pleaſe. Thoſe of Jacquin are little more than outlines.]

Lipp enchiridium botanicum. 1779. 8vo.

Lob. adv. L'Obel (Jacobi I. Mag. Brit. Fran. & Hib. regis Botanographi, ſive plantarum hiſtoriæ phyſica tam indigenarum & Britanniæ inquilinarum quam exoticarum ſcriptoris) adverſaria, eorumque pars altera & illuſtramenta. Lond. 1605. fol. p. p. 549. [Figures 273.]

Lob. obſ. Lobel plantarum ſeu ſtirpium hiſtoria, (title page) ſtirpium obſervationes (title at the beginning of the work, p. 9. and the running title) 1576. fol. [Figures 1495, from Cluſius and Dodonæus, with a few new ones of his own.]

Lob. ic. (Lobelii) plantarum ſeu ſtirpium icones. 1581. [In a long form reſembling a muſick-

book. Figures thoſe of the adv. and obſ. in all 2191 according to Haller, 2173 according to Trew. He began to publiſh in 1570 and died in 1616, then intending a larger herbal. What he had prepared for this work is ſaid to have fallen into the hands of Parkinſon.]

Lobelii nova ſtirpium adverſaria, auct. P. Pena, addit. Gal. Rondeletii. Fol. Antverpiæ. 1576.

Loefl. Plantæ hiſpanicæ & Americanæ. [Republiſhed at the end of the 2d vol. of Dr. Forſter's tranſlation of Boſſu's travels through Louiſiana, from p. 87 to the end.]

Lon. Loniceri botanicon, plantarum hiſtoriæ. 1565. fol. [Figures 723.]

Ludw. Ludwig ectypa vegetabilium (impreſſions of living plants taken by means of printer's ink) Faſc. VIII. 1760 to 1764. fol. (This is by far the moſt certain method of tranſmitting to poſterity the knowledge of ſuch ſpecies as have been found of greateſt importance to mankind.)

Lyons faſciculus plantarum circa Cantabrigiam. 1763. 8vo.

Magn. bot. Magnol botanicum monſpelienſe ſive plantarum circa Monſpelium naſcentium πρωτογνώμων. 1676. 12mo. [Figures 23.]

Mant. pl. Linnæi mantiſſa plantarum generum editionis VI, & ſpecierum editionis II. 1767, publiſhed at the end of Syſt. nat. Tom. II. ed. 12ma. 1767. 8vo. pars altera (the pages continued from the 1ſt part) 1771. 8vo.

Mapp.

Mapp. Mappi hiſtoria plantarum Alſaticarum. 1742. 4to.

Marſhall, Arbuſtrum Americanum. Philadelph. 1785.

Mart. Martyn catalogus horti botanici Cantabrigienſis. 1771. 8vo.—Mantiſſa plantarum horti botanici Cantabrigienſis. 1772. 8vo.

Mat. med. Linnæi materia medica, curante Schrebero. 1772. 8vo. [Plate 1.]

Matth. Matthioli commentarii in Dioſcoridem. 1565. fol. [Figures 932. Many of them characteriſtic, but his deſigner more of the ſpirit of a painter than a botaniſt.]

Mattuſcka enumeratio ſtirpium in Sileſia ſponte creſcentium. 1779. 8vo.

Merr. Merrett pinax rerum naturalium Britannicarum. 1666. 12mo.

Mich. Micheli nova plantarum genera. 1729. fol.

Mieg. Specimen II. obſervationum botanicarum. 1776. 4to.

Mill. Miller's (Philip) abridgement of his gardener's dictionary. 1771. 4to.

Mill. ic. Miller's plates to the folio edition of his gardener's dictionary. fol.

Mill. ill. Miller's (John) illuſtration of the ſexual ſyſtem. 1777. fol. [Unneceſſarily expenſive, by giving 2 plates of each plant. Many plants well figured for the firſt time. I wiſh we could have ſaid *all* of them.]

Mill. off. Miller (Joſ.) botanicum officinale, or a compendious herbal. 1722. 8vo. (In this book many of the Latin names of plants are accented. Veronĭca is given with the i ſhort.)

Milnes botanical dictionary. 8vo.

Moench enumeratio plantarum indigenarum Haſſiæ praeſertim inferiores. Pars I. 1777. 8vo.

Mont. Mont catalogi ſtirpium agri Bononienſis prodromus, gramina ac hujuſmodi affinia complectens. 1719. 4to. [Plates 3.]

Moriſ. umb. Moriſon plantarum umbelliferarum diſtributio nova. 1672. fol. Tab. 12.

Mull. flora Fridrichſdalina ſive methodica deſcriptio plantarum in agro Fridrichſdalina ſimulque per regnum Daniæ creſcentium. 1767. 8vo.

Murr. prodr. Murray prodromus deſignationis ſtirpium Gottingenſium. 1770. 12mo.

Muntingius de vera herba Britannica. 1681. 4to.

Munt. Muntingii phytographia curioſa edente Kiggelaer. Pars I. II. 1702. fol. [Figures 264.]

Nat. delin. Nature delineated. (A tranſlation of Spectacle de la Nature.) 4 vols. 1740. 12mo.

Neck. Necker methodus muſcorum. 1771. 8vo.

Neck. gallo-belg. Necker deliciæ Gallo-Belgicæ ſylveſtres. 1768. 12mo.

Neck. phyſ. Necker phyſiologia muſcorum. 1774 8vo.

Oeder. Author of the firſt 3 vols. of the Fl. dan. to plate 540.

Park.

Park. par. Parkinſon's Paradiſus terreſtris, or a garden of all ſorts of pleaſant flowers, &c. with a kitchen garden, and an orchard of all ſorte of fruit-bearing trees. 1629. fol. [Figures 832, rude, abridged, but frequently expreſſive, many on the ſame block.]

Park. Parkinſon's theatrum botanicum; the theater of plants, or an herball of large extent, &c. with the chiefe notes of Dr. Lobel, Dr. Bonham, and others inſerted therein, &c. by John Parkinſon, King's Herbariſt. 1640. fol. [Fig. 2716.] [Many figures intended by Lobel for a general herbal fell into Parkinſon's hands, and are ſaid to be inſerted in this work. The greater part of his figures are copies of *Ger. em.* but there are many new ones.]

Pena. See Lobel.

Pechey's complete herbal. 12mo.

Penn. ſcotl.—hebr.—wales. Pennant's tours in Scotland and Wales, and voyage to the Hebrides.

Pet. Ray's Engliſh herbal illuſtrated by figures, by James Petiver, (compoſing the former half of the 2d vol. of his Opera in fol.)

Pet. concord. Graminum, muſcorum, fungorum, ſubmarinorum, &c. Britannicorum concordia; a methodical concordance of Britiſh Graſſes, &c. [The laſt article but one in the 2d vol. of his works. Here may be ſeen the firſt beginnings of an Engliſh botanical nomenclature revived by Stillingfleet, and extended to the whole of the Britiſh Flora, in the 1ſt edition of the Bot. Arrang. and

partially adopted in the laſt edit. of the Fl. Ang. —Here alſo is found the modes of reference adopted by Mr. Lightfoot in the Fl. Scot. and which has been purſued, I flatter myſelf, with ſome improvements in this edition of the Bot. Arrang.]

Pet. gaz. Petiver gazophylacium naturæ & artis. (The plates in fol. compoſing the former part of the 1ſt vol. of his works, the deſcriptions, the latter part of the 3d vol. in 8vo.)

Pet. muſ. Muſeum Petiverianum 1695. (forming with the deſcriptive part of the Gazophylacium, 1702, the 3d vol. of his works.) 8vo.

Phil. bot. Linnæi philoſophia botanica. 1751. 8vo.

Philoſ. Tranſ. Philoſophical Tranſactions. London.

Pluk. Plukenetii phytographia, 1691. [Forming Tom. I. of his works in Tomi IV. 1769, 4to;—and the latter ends of Tom. III. and IV. One of the greateſt collections of ſpecies. Figures 2715.]

Pluk. alm. Plukenetii almageſtum botanicum, 1696. (Forming Tom. II. of his works.)

Pluk. amalth. Plukenetii amaltheum botanicum, 1705. (Compoſing the former part of Tom. IV. of his works.)

Pluk. mant. Plukenetii almageſti botanici mantiſſa. 1700. (Compoſing the former part of Tom. III. of his works.)

Pollich hiſtoria plantarum in palatinatu electorali ſponte creſcentium Tomi III. 1777. 8vo. [The largeſt collection of complete original deſcriptions.

The

The parts of the deſcription are not placed in any fixed order.]

Ray. or *R. ſyn.* Raii ſynopſis methodica ſtirpium Britannicarum editio 3tia. 1724, 8vo. [Figures 67, which with numerous additions by the editor Dillenius.—ed. I. 1690. ſmall 8vo.]

R. cat. Raii catalogus plantarum Angliæ & inſularum adjacentium. ed. I. 1670;—ed. II. 1677; 12mo.

R. hiſt. Raii hiſtoria Tomi III. 1686 and 1704. fol. [A collection of the beſt deſcriptions of all the then known plants, with new ones, arranged in a ſyſtem of his own.]

Reich. Reichard in his edition of Linn. ſp. plant. intitled ſyſtema plantarum. A mere compiler.

Reich. fl. Reichard flora moeno-fractofurtana enumerans ſtirpes circa Francofurtum ad moenum creſcentes. Pars I. 1772; pars II. 1778.

Reich. hort. Reichard enumeratio ſtirpium horti botanici Senkenbergiani qui Francofurti adMoenum eſt. 1782. 12mo.

Reich. ſyl. Reichard ſylloge opuſculorum botanicorum. 1782. 8vo.

Relh. Relhan floræ cantabrigienſis exhibens plantas agro cantabrigienſi indigenas. 1785. 8vo.

Relh. ſuppl. Relhan floræ cantabrigienſi ſupplementum. 1786. 8vo.

Renialmi ſpecimen hiſtoriæ plantarum. 1611, 4to. [Figures among ſome of the firſt on copper,

and

and ſcarely ſince excelled. Moſt of his genera andfigures are diſtinguiſhed by ſingle Greek names, after the example of the aſtrological botaniſt Thurnieſſer.]

Retz. fl. Retzi floræ ſcandinaviæ prodromus. 1779. 8vo.

Retz. or *Retz obſ.* Retzii obſervationes botanicæ faſciculus I, 1779; II, 1781; III, 1783, fol. [conſiſting of original obſervations illuſtrated with a few figures.]

Reyg. Reyger tentamen floræ gedanenſis. Dantiſci 1764. 12mo.

Riv. Rivini ordines plantarum flore monopetalo, & tetrapetalo. Lipſiæ, 1690 and 1691. fol. [Figures 379, the moſt excellent which had then appeared.]

Roi. Du Roi diſſertatio inauguralis obſervationes botanicas ſiſtens. 1771. 4to. [His ſpecific characters unneceſſarily long and diffuſe.]

Roſe's elements of botany. 1775. 8vo.

Roth beytr. Roth beytrage zur botanick, (in German with Latin deſcriptions) Bremen 1782. 12mo.

Roth. verz. Roth verzeichniſs derjenigen pflanzen, (in German with Latin deſcriptions.) Altenburg, 1781. 12mo.

Rouſſeau's letters on botany tranſlated, with additional letters by T. Martyn, B. D. 1785. 8vo.

Rottb. Rottböll deſcriptionum & iconum rariores & pro maxime parte novas plantas illuſtrantium. 1773. fol. [Numerous figures of foreign Graſſes, &c.]

Rüling

Rüling ordines naturales plantarum. Goetting. 1774. 8vo.

Ruppii flora jenenſis ſive enumeratio plantarum tam ſponte circa Jenam et in locis vicinis naſcentium, quam in hortis obviarum. 1726. 12mo. [Plates 9.]

Rupp. ab Hall. Ruppii flora jenenſis edente Hallero. 1745. 12mo. [Plates 10, 4 of the old ones and 6 new ones.]

Rutty's eſſay towards a natural hiſtory of the county of Dublin. 2 vols. 1772. 8vo.

Sabbat. Sabbati hortus romanus ſecundum ſyſtema Tournefortii. Tom. IV. 1772.—1777. folio.

Schaeff. Schaeffer fungorum qui in Bavaria & Palatinatu circa Ratiſbonam naſcuntur icones. Tomi IV. 1762 to 1774. 4to.

Schaeffer botanica expeditior. 8vo. [A laborious but trifling and uſeleſs work, conſiſting of botanical tables on copper-plates.] Ratiſbonæ, 1762.

Scheuch. Scheuchzeri agroſtographia, ſive graminum, juncorum, cyperorum, cyperoidum iiſque affinium hiſtoria, edente Hallero. (With an appendix by the editor, and a re-impreſſion of the plates of Scheuchzer's prodromus.) 1775, 4to. [The figures 199, thoſe of the Agroſtographia bearing no ſort of compariſon with the accuracy of the deſcriptions.]

Scheuch. it. J. Jacobi Scheuchzeri itinera per Helvetiæ alpinas regiones. 1723. 4to.

Schmid. Schmidel icones plantarum & analyſes partium, curante & edente Keller pictore norimbergenſi.

bergenſi. 1762. fol.—Manipulus II. curante & edente Biſchoff chalcographo norimbergenſi, 1776. fol. [p. 95 to 138, tab. 26 to 50, no deſcriptions of tab. 36 to 50. — This work does great honour to the author and to the artiſts of Nuremberg.]

Schmid. blaſ. Schmidel de Blaſia, 1759, 4to.

Schmid. buxb. Schmidel de Buxbaumia, 1758, 4to.

Schmid. jungerm. Schmidel de Jungermannia, 1760. 4to.

Scholler flora barbienſis. Lipſ. 1775. 8vo.

Schreb. Schreber Beſchreibung der Graſer. Plates 1 to 40.—(in German) Leipſ. 1774. fol. [Did this ingenious botaniſt mean to compel other nations to learn German, or to confine his communications to his fellow citizens?]

Schreb. ic. Schreber icones & deſcriptiones plantarum minus cognitarum. Decas I. 1766. fol.

Schreb. mant. Schreber mantiſſa editioni quartæ Linnæi materiæ medicæ. 1782. 8vo.

Schreb. phaſc. Schreber de phaſco. 1770. 4to.

Schreb. ſpic. Schreberi ſpicilegium flora Lipſicæ. 1771. 8vo.

Schreb. vert. Schreberi plantarum verticillatarum unilabiatarum genera & ſpecies. 1774. 4to.

Scop. Scopoli flora carniolica exhibens plantas Carnioliæ indigenas. Tomi II. 1772, 8vo.

Scop. ann. Scopoli annus I, II, & III. hiſtorico-naturalis. 1769; IV, 1770; V, 1772, ſmall 8vo.

Scop. ſubt. Scopoli plantæ ſubterraneæ. 12mo.

Scopoli

Scopoli Introductio ad Hiſt. naturalem. 8vo. Pragæ. 1777.

Seguieri plantæ veronenſis, ſeu ſtirpium quæ in agro Veronenſi reperiuntur methodica ſynopſis. Tomus I. 1745. 8vo.

Spalowſky diſſertatio inauguralis de Cicuta, Flammula Jovis, Aconito. Pulſatilla, Gratiola, Dictamno, Stramonio, Hyoſcyamo, & Colchico, 1777. 8vo. [Characteriſtic figures. Quoted under the title of *Stoerck*.]

Sp. pl. Linnæi ſpecies plantarum, exhibentes plantas rite cognitas ad genera relatas. Editio 2da. Tom. I. 1762; II, 1763. 8vo. [The foundation of all true botanic knowledge reſpecting ſpecies.]

Stilling. Stillingfleet's miſcellaneous tracts. 1762, 8vo. [Several of the drawings by Mr. Price, a country gentleman of Herefordſhire.]

Stoerck. [See Spalowſky.]

St. Jonathan Stokes, M. D.

Stechmann de Artèmiſiis, 1775. 4to.

Swert. Swertii florilegium. Tomi II. fol. Frank. 1612. [Figures 560, on copper, but coarſe.]

Syſt. nat. Linnæi ſyſtema naturæ. ed. XII. Tomi III. 1766, and 1767, 8vo.

Syſt. pl. Linnæi ſyſtema plantarum curante Reichard. Tomi IV. 1779, & 1780. 8vo.

Syſt. veg. Linnæi ſyſtema vegetabilium, editio XIV. (meaning the 14th republication of the vegetable part of the ſyſtema naturæ) curante Murray. 1784. [Containing new ſpecies added by Jacquin & Murray]—*ed. XIII*. 1774. 8vo. *Thal*.

Thal. Thalii ſylva Hercynia ſive catalogus plantarum ſponte naſcentium in montibus et locis vicinis Hercyniæ quæ reſpicit Saxoniam. 1588. ſmall 4to. (publiſhed with Camerarii hort.) [Figures 14.]

Thurneiſſeiri or *Turnieſſeri* hiſtoria ſive deſcriptionum plantarum omnium liber I. 1578. fol. (Treating of umbilliferous plants in ovals about 3 inches long, with coloured ornamented borders, and each plant diſtinguiſhed moſtly by one, but ſometimes two Greek words. p. p. 156.) An aſtrological botaniſt.

Tilli catalogus plantarum horti Piſani. 1723. fol. [Figures 83.]

Tourn. Tournefort inſtitutiones rei herbariæ. Tom. III. 1700. 4to. [The foundation of the true knowledge of genera. Plates 489.]

Trag. Tragi de ſtirpium maxime vero earum quæ in Germania naſcuntur commentarii, interprete Kybero. 1552. ſmall 4to. [Chiefly imitations of Fuchſius.]

Trew plantæ rariores edente Keller. 1763. fol.

Vaill. Vaillant botanicon pariſienſe ou denombrement par ordre alphabetique des plantes qui ſe trouvent aux environs de Paris. 1727. fol. [Fig. 840.]

Vandelli Faſciculus plantarum. 4to. 1771.

Volck. Volckameri flora Noribergenſis, ſive catalogus plantarum in agro Noribergenſi tam ſponte naſcen-

naſcentium, quam exoticarum in viridariis ac medico horto enutritarum. 1700. 4to.

Walc. Walcott flora Britannica indigena. No. I. to XIV.—[I wiſh this ingenious gentleman would reſume his work, becoming as curious as Mr. Curtis in the ſelection of characteriſtic ſpecimens, and beginning the propoſed continuation with ſuch plants as are not included within the limits of the Flora Londinenſis. The parts of fructification might be added, and perhaps it would be well to colour ſome copies in the manner of the works of Jacquin.]

Walther Deſignatio plantarum quas hortus Waltheri pathologiæ profeſſoris Lipſienſis complectitur. 1735. 8vo.

Warner plantæ Woodfordienſes; a catalogue of the more perfect plants growing ſpontaneouſly about Woodford in Eſſex, 1771. 12mo.

Weber. Weberi ſpicilegium floræ goetingenſis plantas imprimis crytogamicas Hercyniæ illuſtrans. 1778. 8vo.

Weig. fl. Weigel flora pomerano-rugica exhibens plantas per Pomeraniam anteriorem fuecicam & Rugiam ſponte naſcentes. 1769. 12mo.

Weig. hort. Weigel hortus Gryphicus. 1782. 4to.

Weis, Plantæ Cryptogamicæ Floræ Gottingenſis. 8vo. 1770.

Wieg. Wiegel obſervationes botanicæ. 1772. 4to. [Rather too fond of change.]

Wiggers

Wiggers primitiæ floræ Holſaticæ. 1780. 8vo. [His novelties will generally bear examination.]

Wilcke flora Gryphica exhibens plantas intra miliare ſponte naſcentes. 1765. 12mo.

Willich obſ. Willich obſervationes botanicæ (publiſhed in an inaugural diſſertation 1747, and republiſhed in Reichard ſylloge, p. 82 to 94)—de plantis quibuſdam obſervationes, Gotting. 1762. [republiſhed in Reich. ſylloge, p. 94 to 142.—A very ingenious obſerver.]

Willich ill. Willich illuſtrationes quædam botanicæ. Gotting. 1766. (republiſhed in Reich. ſylloge, p. 142 to the end. In the firſt 5 leaves, of ſheet K, the pages are repeated.)

With. William Withering. M. D.

Wulff flora boruſſica. 1765. 8vo.

[Wulff] genera plantarum vocabulis characteriſticis definita. [Dantiſci] 1776. [I once formed a botanical language on a plan ſomewhat ſimilar, but I ſoon diſcovered that in proportion as plants reſembled each other, the difficulty of diſtinguiſhing the ſounds or combinations of letters expreſſive of them, muſt proportionably increaſe. Languages formed on plans of this kind, muſt be full of ſuch ambiguous names as Clutia, and Cluſia.]

Zanon. Zanonii rariorum ſtirpium hiſtoria, edente Montio. Bonon. 1742. [Figures rude, but we muſt recollect that they were firſt publiſhed in 1675.]

Zinn catalogus plantarum horti academici & agri Gottingenſis. 1757. 8vo. *Claſs.*

Class I.

MONANDRIA.

I. CHIVE.

Order I.

MONOGYNIA.

I. POINTAL.

11. HIPPU'RIS. - - *Empalement* 0. *Bloſſom* 0.
10. SALICOR'NIA. - *Empal.* 1 leaf. *Bloſſ.* 0.
† Aphanes.

Order II.

DIGYNIA.

II. POINTALS.

13. CALLIT'RICHE. - *Empal.* 0. *Bloſs.* 2 Petals. *Capſule* 2 Cells.

11. HIPPU'RIS. Mare's-tail.

EMPALEMENT, 0.
BLOSSOM, 0.
CHIVE, *Thread* ſingle, growing upon the receptacle of the flower. *Tip* ſlightly cloven.
POINTAL, *Seed-bud* oblong, ſuperior. *Shaft* ſingle; awl-ſhaped, upright, longer than the chive; ſituated betwixt the chive and the ſtem. *Summit* ſharp.
SEED-VESSEL, 0.
SEED, ſingle, roundiſh, naked.
ESSENTIAL CHARACTER. *Cup* 0. *Petals* 0. *Summit undivided*. *Seed* 1.

common HIPPU'RIS *vulga'ris*. Leaves in eights, awl-ſhaped. LINN. ſuppl. 81.

Giſeke. 32. *Fl. dan*. 87. *J. B*. iii. 732. *fig. on the left hand the beſt*. *Ger*. 953. *C. B. th*. 243. 4. *Park*. 1200. 4. *Seguier* i. 2? *not in flower*. (*Dod*. 113. 2. *reprinted by Ger. em*. 1114. 6. *is an Equiſetum, as is evident from the ſpike which terminates the left hand ſtem*). *Parts of Fructification*. *Vaill. Mem. de Paris*. 1719. 1. 3.

Leaves narrow; growing in whorls round the joints, 12 or more at each joint. *Flowers* equal in number to the leaves. *Stem* ſtraight, jointed. The flower of this plant is found at the baſe of each leaf, and is as ſimple as can be conceived, there being neither empalement nor bloſſom; and only 1 chive, 1 pointal, and 1 ſeed. LINN.

Leaves to 13 in each whorl. *Flowers with only Pointals* ſometimes intermixed in the ſame whorl. *Tip* when young, truly ſitting; its cells of a dark red. SCOP.

Mare's-tail. *Paddowpipe*.

Muddy ponds and ditches, not common. [About a mile from Stafford, on the foot-road to Aſton. W.] P. May.

It is a very weak aſtringent. Goats will eat it, but Cows, Sheep, Horſes and Swine refuſe it.

10. SALICOR'NIA. Glaſs-wort.

EMPAL. 4 edged, lopped, diſtended, permanent.
BLOSS. 0.
CHIVE. *Thread* ſingle, undivided, longer than the cup. *Tip* double; oblong; upright.
POINT. *Seed-bud* oblong egg-ſhaped. *Shaft* ſimple, ſtanding under the chive. *Summit* cloven.
S. VESS. 0. The cup diſtended and blown up includes the ſeed.
SEED ſingle.
ESS. CH. *Cup bellying; entire. Petals* 0. *Seed* 1.

OBS. The number of chives not very certain; ſometimes there are 2 in each flower. See Philoſ. Tranſ. vol. 57. pl. 312.

SALICOR'NIA *herba'cea*. Herbaceous, ſpreading. *jointed*
Joints flatten'd and between nick'd and cloven, at the end.

Fl. dan. 303. *cop. in Blackw. auct.* 598. *Math.* 465. *Dod.* 82. 1. *reprint. by Lob. adv.* 170. 2. *and Ger.* 535. 1. *Pet.* 9. 3. *H. ox.* v. 33. 8. *J. B.* iii. 705. 2. *n.* 1. 11. 111. *Park.* 280. 4. *Barr.* 192.

Spike jointed. *Flowers* near together at each joint. BASTER.

Flowers 3 together on each ſide the ſtem, in the cleſts of the joints. *Joints* thicker at the end, and blunt. *Stem* wide-ſpreading.

Glaſs-wort. Salt-wort. Sea-graſs. Marſh Samphire.

Sea-ſhore, common. A. Aug. Sept.

From the aſhes of this plant, a foſſil alkaly is obtained, which is in great requeſt for making ſoap and glaſs. It is chiefly made on the coaſt of the Mediterranean, and is called Soda. The green plant ſteeped in ſalted vinegar makes a pickle very little inferior to Samphire. The whole plant has a ſaltiſh taſte, and is greedily devoured by cattle.

Salicornia europœa herbacea. HUDS. *α. β.*

SALICOR'NIA *frutico'ſa*. Stem upright, ſhrubby. *woody*
Pet. 9. 4.

Evergreen; much larger than the *S. herbacea*. *Spikes* different, never ſeen in Sweden, though the *herbacea* very common; the difference however very little if any. LINN.

Joints nearly of an equal thickneſs; blunt; near together. *Stem* more branched than the *herbacea*. GER. PROV. 328.

LIGHTFOOT and HUDSON regard it only as a variety of the former ſpecies.

Salicornia europœa fruticoſa. HUDS. *γ. δ. η.*

Near the iſle of Sheepy, and in the iſle of Grain in the Thames. P. Aug. Sept.

Order II.

DIGYNIA. II. POINTALS.

13. CALLIT'RICHE. Star-graſs.

EMPAL. 0.
BLOSS. *Petals* 2, bowed inwards, channelled; tapering to a point, ſtanding oppoſite to each other.
CHIVE. *Thread* ſingle, long, crooked. *Tip* ſimple.
POINT. *Seed-bud*, nearly round. *Shafts* 2, hair-like, crooked. *Summits* ſharp.
S. VESS. *Capſule* roundiſh, a little compreſſed; with 4 angles, and 2 cells.
SEEDS. Solitary, oblong.
ESS. CH. *Cup* 0. *Petals* 2. *Caps.* 2 *Cells.* 4 *Seeds.*

OBS. In the firſt ſpecies the chive and pointals are in ſeparate flowers.

HUDSON's GENERIC DESCRIPTION.

B. *Flowers with only Chives.*
EMPAL. 0.
BLOSS. Petals 2, *oppoſite, oblong, concave, approaching.*
CHIVE. Thread 1, *very long, ſtraight.* Tip *roundiſh, undivided.*
POINT. S. VESS. SEEDS. 0.

F. *Flowers with Pointals on the ſame Plant.*
EMPAL. BLOSS. as in B.
POINT. Seed-bud *ſuperior; flattened.* Shafts 2, *thread-ſhaped, very long.*
S. VESS. Caps. *inverſely heart-ſhaped, flattened; of* 2 *cells,* 4 *valves.*
SEED. *Single, oblong.*

H. *Flowers with Chives and Pointals on the ſame Plant.*
EMPAL. BLOSS. CHIVE, *as in* B.
POINT. S. VESS. SEEDS, *as in* F. (ST.)

vernal CALLIT'RICHE *ver'na.* Upper leaves oval. Chive and pointals in ſeparate flowers.—

Stems feeble, numerous. Bloſs. ſmall, white. Upper leaves growing near together in form of a ſtar; lower ones in pairs. It flowers in the Spring.

Water Starwort. Water Fennel. Star-headed Water Chickweed.

VAR.

VAR. 1. Lower leaves ſtrap-ſhaped, blunt, as if lopped; a line in breadth. HALL.—Leaves oblong. Chives and pointals in different plants. Fruit nicked at the end SCOP. (ST.)

Ger. 830. 3. *Park.* 1258. 10. *Pet.* 6. 3.

Barren and the *fertile* flowers frequently oppoſite to each other, on different ſides of the ſtem, in the boſom of the correſponding leaves. Mr. WOOD.

All the leaves ſitting. *Lower leaves* ſpear-ſhaped, oppoſite, diſtant. *Upper leaves* ſlightly notched at the end. *Fertile flowers* in the boſom of the lower leaves; *barren* ones amongſt the upper leaves, which are crouded together. *Petals* thick, flat, bowed inwards at the edge like a creſcent. When magnified they appear to be a collection of air veſſels, and are undoubtedly intended to float the flower. WITH. Pl. 13. f. 1.

In ditches and ſtill waters, frequent. A. Apr. Aug.

A Horſe refuſed it. ST.

VAR. 2. All the leaves roundiſh, on leaf-ſtalks, very entire; in pairs, except the lower ones. Roots from the inſertions of the leaves. HALL. 553. (ST.)

Fl. dan. 129. *J. B.* iii. 786. 2. *Park.* 1263. 2.—*Parts of fructification. Vaill.* 32. 10.

Chives 2. VAILL.

VAR. 3. Leaves egg-ſhaped. Chives and pointals in various diſpoſitions. SCOP. Creeping, ſtriking roots into the earth.—DILL. in R. Syn. 289. (ST.)

In places where water, that has ſtood during the winter, has been dried up.

CALLIT'RICHE *autumna'lis*. All the leaves ſtrap-ſhaped, cloven at the end. Chive and pointals in the ſame flower.— *autumnal*

Pet. 6. 4. *Gmel.* iii. 1. 2. *bad.*

Leaves oblong. *Chives* and *pointals* in different plants. SCOP. *Bloſs.* yellowiſh white. WITH.

Ditches and ſtill waters, frequent. A. Sept.

It ſometimes grows ſo thickly matted together as to allow one to walk upon it without ſinking.

Obs. SCOPOLI regards the *C. verna* (1.) and the *C. autumnalis*, as the ſame ſpecies, combining them together under the name of *C. fontana*; making the *C. verna* (3.) a diſtinct ſpecies, by the title of *C. ſtagnalis*. Mr. HUDSON conſiders them all as one ſpecies, which he calls *C. aquatica*; giving as a ſpecific character—"Leaves notched at the end." (ST.)

Claſs II.

DIANDRIA;

II. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

† Lepidium ruderale. Salix hermaphroditica. Fraxinus excelſior.

* *Bloſs* 1 regular *petal;* beneath.

18. LIGUS'TRUM. - *Bloſs.* with 4 clefts. *Berry* with 4 ſeeds.

** *Bloſs.* 1 irregular *petal;* beneath. *Seeds* in a capſule.

26. VERONI'CA. - *Bloſs.* with 4 diviſions in the border, the *lower ſegment* narroweſt.

33. PINGUIC'ULA. - *Bloſs.* gaping, ending in a *ſpur. Empal.* cloven into 5 parts.

34. UTRICULA'RIA. - *Bloſs.* gaping, ending in a *ſpur. Empal.* 2 leaves.

*** *Bloſs.* 1 irregular *petal;* beneath. *Seeds* naked.

36. LY'COPUS. - - *Bloſs.* nearly equal. *Chives* diſtant from each other.

42. SAL'VIA. - - - *Bloſs.* gaping. *Threads* very ſhort, each ſupporting a croſs thread.

† Salicornia herbacea.

**** *Bloſs.* ſuperior.

25. CIRCÆ'A. - - *Cup* 2 leaves. *Bloſs.* 2 petals, inverſely heart-ſhaped.

Order II.

DIGYNIA; II. POINTALS.

46. ANTHOXAN'THUM. *Empal.* Huſk oblong, containing 1 flower. *Bloſs.* 2 huſks, furniſhed with awns.

† Buſonia.

18. LIGUS'TRUM. Privet.

EMPAL. *Cup* 1 leaf; tubular; very ſmall; with 4 upright blunt teeth in its rim.

BLOSS. 1 petal; funnel-ſhaped. *Tube*, cylindrical, longer than the cup. *Border* expanded; divided into 4 egg-ſhaped ſegments.

CHIVES. *Threads* 2; ſimple, oppoſite. *Tips* upright, nearly as long as the bloſſom.

POINT. *Seed-bud* nearly round. *Shaft* very ſhort. *Summit* thick, blunt, cloven.

S. VESS. *Berry* globular; ſmooth; of 1 cell.

SEEDS. 4, convex on one ſide; angular on the other.

ESSENT. CHARACT. *Bloſs.* 4 *clefts. Berry* 4 *ſeeds.*

LIGUS'TRUM *vulga're.* *common*

Mill. 162. 2. *Math.* 170. *Blackw. auct.* 140. *Ger.* 1208. *J. B.* i. 528. 2. *copied by Johnſt.* 73. 9. *Fuchs.* 480, *copied by Tragus*, 1005. *Ger. em.* 1394. *Swert.* ii. 38. 4. *(Park.* 1446, *is the figure of a Euphorbia.)*

Bloſs. white, in bunches, terminating. *Berries* black.—

Leaves ſometimes growing by threes, and ſometimes enlarged at the baſe. *Berries* egg-ſhaped, continuing through the winter. SCOP.

Fruit ſometimes white, and *Berry* ſometimes with 2 cells. DU ROI.

Shaft as long as the chives. Mr. HOLLEFEAR.

Segments of the *Bloſs.* thick and fleſhy. *Chives* generally 2, ſometimes 3 or 4, in each flower. *Threads, Tips, Pointal,* white. *Leaves* betwixt egg and ſpear-ſhaped, very entire; growing in oppoſite pairs. *Fruit-ſtalks* a little woolly when magnified; every other part of the plant perfectly ſmooth. *Leaves* ſometimes variegated with white. WITH.

Privet. Prim. Print.

Hedges in gravelly ſoils. S. June. July.

The berries are filled with a dry, ſpongy, violet pulp, from which a roſe-coloured pigment may be prepared. SCOP.

It is planted to make hedges;—it grows faſt, and may be raiſed from cuttings. Mr. SOUTHALL.

With the addition of allum, the berries dye wool and ſilk of a good and durable green; for this purpoſe they muſt be gathered as ſoon as they are ripe—the leaves are bitter, and ſlightly aſtringent.—Oxen, Goats, and Sheep eat it, Horſes refuſe it.

The Inſects obſerved to feed upon this plant are the Sphinx Liguſtri and Phalæna Syringaria.

26. VERONI'CA. Speedwell.

EMPAL. *Cup* with 4 diviſions; permanent. *Segments* ſpear-ſhaped, ſharp.

BLOSS. Wheel-ſhaped; of 1 petal. *Tube* nearly as long as the cup. *Border* flat, divided into 4 egg-ſhaped ſegments. *Lower ſegment* narroweſt; that oppoſite to it the broadeſt.

CHIVES. *Threads* 2; thinneſt at the bottom; aſcending. *Tips* oblong.

POINT. *Seed-bud* compreſſed. *Shaft* thread-ſhaped, declining; as long as the chives. *Summit* ſimple.

S. VESS. *Capſule* inverſely heart-ſhaped, compreſſed at the point; with 2 cells and 4 valves.

SEEDS. Several; roundiſh.

ESS. CHAR. *Border of the bloſs. with 4 diviſions; the lower ſegment the narroweſt. Caps. 2 cells.*

OBS. The tube of the bloſs. is different in different ſpecies; in moſt very ſhort, but in the 3 firſt longer.

* *Flowers in ſpikes.*

ſpiked VERONI'CA *ſpica'ta*. Spike terminating. Leaves oppoſite, blunt, ſcolloped. Stem aſcending; undivided.—*With a ſingle ſpike.—Fl. dan.* 52. *Clus.* i. 347. 3. *reprinted by Lob. obs.* 250. 3, *and Ger. em.* 627. 4. *Vaill.* 33. 4. *J. B.* iii. 282. 3 *and* 4. *original. H. ox.* iii. 22. 4. *(Park.* 550 *is the V. ſpuria.) With* 2 *or more ſpikes—(Specimen with* 3 *ſpikes given me by the ſon of Prof. Jacquin, but by no means the plant, figured by Clus.* i. 346. 2, *reprinted by Ger. em.* 628. 6. *and J. B.* iii. 284. 1. *to which Scopoli and Reichard refer as a var. of this ſpecies; or J. B.* iii. 282. 2, *referred to by Scopoli, which Bauhine expreſsly tells us is a copy of Fuchſius's fig. of the V. officinalis.)*

Spikes ſometimes more than one. *Bloſs.* blue, white, or fleſh-coloured. REICH.

Leaves ſpear-ſhaped, toothed, ſomewhat hairy; running down the leaf-ſtalks. *Flowers* ſet cloſe. SCOP.

Upright

SCOPOLI's Diſtribution of the Species.

1. Leaves blunt.

V. fruticuloſa, ſerpyllifolia, Beccabunga.

2. Leaves pointed.

(a.) upright.

V. Anagallis, Chamædrys, montana, ſpicata, arvenſis.

(b) trailing.

V. officinalis, ſcutellata, agreſtis, hederifolia, triphyllos.

Upright ſpiked male Speedwell. Smalleſt Fluellin.
Mountainous moiſt paſtures. (Cavenham heath near Bury, Suff. Mr. WOODWARD.) P. June.
Cows and Sheep will eat it, Goats and Horſes refuſe it.

VERONI'CA *hybrida*. Spikes terminating. Leaves oppoſite, bluntly ſerrated, rough. Stem upright.— *Welſh*
Ray. 11. *good.*

Stems ſimple, aſcending, about a ſpan long. *Spike* oblong, terminating. *Leaves* oval, rather blunt, downy, green on both ſides; ſerratures large, blunt. *Leaf-ſtalks* bordered. LINN.

Bloſs. blue; the tubular part hairy within. *Leaves* thick and fleſhy; rough with ſhort white hairs, which grow out of ſmall prominent glands. WITH.

Veronica ſpicata hybrida. HUDS.
Welſh Speedwell. Bugle-leaved Speedwell.
On Craig Wreiddin, Montgom. [Near Penny-bridge in Lancaſhire, Mr. WOODWARD.] P. July.

VERONI'CA *officina'lis*. Spikes on lateral fruit-ſtalks. Leaves oppoſite. Stem trailing.— *common*
Ludw. ect. 100. *Curt. n.* 33. *faſc.* 3. *Fl. dan.* 248. *Ger.* 502. 1. *Riv.* 93. 2. *Veronica. J. B.* iii. 282. 1. *Black.* 143. *Fuchs.* 166, *copied by Tragus* 207, *and J. B.* iii. 282. 2. *Math.* 693, *copied by Dod.* 40. 3, *reprinted by Lob. obs.* 250. 2. *and Ger. em.* 626. 2, *again copied by Park.* 550. 2. *and in the H. ox.* iii. 22. 7. *(Dod.* 40. 2. *reprinted by Lobel. obs.* 250. 1. *and Ger. em.* 626. 1. *and cop. by Park.* 550. 1. *ſeems to be a different plant; for in none of the ſpecimens which I have examined, nor in the preceding figures, are any of the ſtrap-ſhaped leaves to be found which garniſh the lower part of the fruit-ſtalk in the figures laſt referred to.)*

Stems ſcattered on the ground, throwing out roots from the lowermoſt knots. *Leaves* aſcending, toothed. The whole plant hard and dry. *Fruit* ripe in Sept. SCOP.

Little fruit-ſtalks ſhorter than the floral leaves.—*Tube* of the *Bloſs.* about half as long as the cup; white. *Border* pale purple: the *broadeſt* ſegment marked with 6 or 7 deeper purple ſtreaks; the narroweſt ſegment with 3, and each of the lateral ſegments with 4. *Tips* arrow-ſhaped. *Stems* cylindrical, woolly. *Leaves* oppoſite, egg-ſhaped, ſerrated; hairy underneath, and at the edges. *Floral-leaves* ſtrap-ſhaped. Some of the *Fruit-ſtalks* are ſo near the end of the ſtem that at firſt view they appear terminating, but upon more accurate examination we find one or more pairs of leaves beyond them. WITH.

Common Speedwell. Male Speedwell. Fluellin.

Barren ground; heaths. P. May. June.

The leaves have a slight degree of astringency and bitterness. An infusion of them is recommended by Hoffman, as a substitute for tea, but it is more astringent and less grateful.

It is eaten by Cows, Sheep, Goats, and Horses. Swine refuse it.

** *Flowers in broad bunches.*

shrubby VERONI'CA *fruticulo'sa?* Broad-topped spike terminating. Leaves spear-shaped, blunt. Stems somewhat shrubby.—

Hall. 16. 1. *Fl. dan.* 342. *Pona in Clus.* ii. 337. 1. *reprinted by Ger. em.* 628. 5. *and copied by Park.* 551. 1.—*not the V. saxatilis as Hall. and the German synonyms suppose, as is evident from the description of the colour of the blossoms.*

Shoots perennial. *Stems* trailing and perennial at bottom, upright and dying down at top. *Leaves* somewhat scolloped; upper ones larger, smooth. *Fruit* large. *Empal.* with 4 clefts; slightly pubescent. *Blos.* white; with bloody streaks. *Fruit-stalks* longer than the floral-leaves. LINN.

Stems simple; always upright. *Leaves* egg-spearshaped, or oblong; concave, pointed, toothed here and there. *Blos.* flesh-coloured; sometimes white; not large. *Empal.* segments tapering to a point. *Caps.* egg-shaped, blunt, not nicked at the end. SCOP.

Leaves opposite. *Cups* smooth. *Fruit-stalks* longer than the floral leaves. JACQ.

Veronica fruteſcens. SCOP.

Mountains. Ben Nevis, Scotland. Mr. HUDSON.† S. May. June.

Mr. Lightfoot had inserted on the authority of others the *V. alpina*, but the examination of a specimen proved it to be only a slight variety of the *V. serpyllifolia.*

† Besides the above references, Mr. HUDSON has given also the following to what HALLER (545 β) considers as a variety of the *V. fruticulosa*; but SCOPOLI and LINNÆUS THE SON, (*Suppl.* 85.) think it a distinct species, which they have called the

rock VERONICA (*saxatilis?*) Broad-topped spike terminating. Leaves opposite. Empalements (*omitted by Linn. but probably from an error of the press*) smoothish. Fruit-stalks longer than the leaves. JACQ. *enum. p.* 200.

Clus. i. 347. 1. *copied by Park.* 551. 7. *and H. ox.* iii. 22. 5. (*not the V. fruticulosa as the German synonyms make it, as is evident from the description copied from Clusius.*) *J. B.* iii. 284. 3. (*Pluk.* 232. 5. *Hall.*)

Stems branched, wide-spreading, producing buds. *Leaves* sitting, nearly egg-shaped, blunt, flattish, very entire. (But both

J. B.

VERONI'CA *ſerpylliſo'lia*. Bunches terminating, *ſmooth* nearly reſembling a ſpike. Leaves ſmooth, egg-ſhaped, ſcolloped.—

Leaves with 3 fibres, CURT.

Curt. n. 5. faſc. i. Fl. dan. 492. *Walc. Dod.* 41. 1. *reprinted by ob. Lobs.* 250. 4, *and Ger. em.* 627. 2. *J. B.* iii. 285. 1. *Riv.* 99. *Veronica minima repens. Id. t.* 93. *f.* 147. 2. *V. erecta ſylveſtris? Pluk.* 233. 4. *Ger.* 503. 3. *(Gouan. illuſtr.* 1. 2, *has every appearance of being a diſtinct ſpecies.)*

Leaves elliptical, ſeldom more than 4 pair, the reſt alternate. *Bloſs.* white; the 3 upper ſegments marked with blue lines; the throat and tube of a greeniſh tinge. *Threads* white. *Tips* blue. *Shaft* reddiſh. *Summit* white, circular, flat. *Fruit-ſtalks* ſhorter than the floral-leaf immediately below it, pubeſcent, hairs knobbed. *Empal.* not ſo hairy as the fruit-ſtalks. SCOP.

It is difficult to diſtinguiſh this from the *V. ſpicata*, in which Linnæus ſays the flowers form a "*terminating ſpike*," and in this he ſays they form a "*terminating bunch nearly reſembling a ſpike.*" Linnæus gives no other difference by which they can be diſtinguiſhed, and it is evident that this is hardly ſufficient. The ſtem in the *ſerpylliſolia* is often undivided as well as in the *ſpicata*, and when it is branched it is only near the root. *Cup* deeply divided into 4 equal ſpear-ſhaped ſegments, not evidently hairy. *Bloſs.* pale blue; upper ſegment with 5 or 8 purple lines, lateral ſegments with 3; ſmalleſt ſegment white. *Tips* blue. *Seed-bud* nearly heart-ſhaped; *Shaft* permanent; blue towards the top; *Summit* whitiſh. *S. Veſſ.* fringed with hairs round the edge. *Stem* cylindrical, aſcending; ſeveral riſing from the ſame root, but frequently each has its own particular root; bearing from 5 to 7 pair of leaves; moſtly oppoſite; the upper ones intermixed with the flowers. *Leaves* egg-ſhaped, ſitting, ſmooth, very ſlightly ſcolloped. Upper *floral-leaves*

J. B. and Clus. and even Scop. himſelf in his firſt Ed. deſcribe them as minutely ſcolloped here and there, as they are in a ſpecimen given me by the Son of Profeſſor JACQUIN. ST.) *Broad-topped ſpike* ſometimes running into a bunch. *Empal. and Caps.* with a very ſlight hairineſs, but ſometimes quite ſmooth. *Bloſs.* ſegments roundiſh, very blunt. *Floral-leaves* ſometimes alternate. JACQ.

Veronica fruticans. JACQUIN.

The Higher Alps. SCOP. June. July. JACQ.

Mr. Hudſon ſubjoins to each ſynonym a mark of doubt.

Not having ſeen Mr. Hudſon's ſpecimen, I can only offer the above ſynonyms, to enable ſome Botaniſt on the ſpot to aſcertain this very dubious plant. Dr. STOKES.

alternate, ſpear-ſhaped, twice as long as the fruit-ſtalks. *Flowers* on ſhort fruit-ſtalks, one riſing out of the boſom of each floral-leaf, and forming altogether a long, leafy, ſpike-like bunch, terminating. WITH.

Smooth Speedwell. Pauls Betony.

Meadows and paſtures, not uncommon. P. May,

Horſes, Cows, Goats, and Sheep eat it.

Brook-lime VERONI'CA *Beccabunga*. Bunches lateral. Stem creeping. Leaves flat; egg-ſhaped.—

Ludw. ect. 30, *Curt. n.* 15. *faſc.* ii. *Scheldr. (Brookl.) Riv.* 100. *Beccabunga. Walc. Fuch.* 725. *copied by Tragus* 188. *Blackw.* 48. 1. *and* 2. *Fl. dan.* 511. *Dod.* 593. 1. *reprinted by Lob. obs.* 248. 3. *Ger. em.* 620. 1. *copied by Park.* 1236. 1. *and ill copied in the H. ox.* iii. 24. 24. *Ger.* 496. 1. *(Blackw. auct.* 48. 2. *Fuch. and Trag. are regarded by Thal. C. B. and Trew in Blackw. auct. as ſpecifically differing from the other.)*

Smooth, ſucculent. *Stem* cylindrical. *Leaves* edged with ſhort teeth, terminated by glands. *Bloſs.* each ſegment terminated by a gland, and marked at the baſe with 2 white lines, SCOP.

Leaves ſitting; ſerrated. *Cup* with 4 unequal diviſions. *Bloſs.* blue; ſometimes white. *Tube* of the bloſs. much ſhorter than the cup. *Border* with 4, and ſometimes 5 unequal diviſions. *Seed-bud* with a thick, glandular, yellowiſh green ſubſtance under its baſe. WITH.

Brooklime.

Slow ſhallow ſtreams, and near ſprings that ſeldom freeze. P. June.

The leaves are mild and ſucculent, and are eaten in ſallads early in the Spring. Cows, Goats, and Horſes eat it, Swine refuſe it.

This, and ſome other ſpecies of Veronica, afford nouriſhment to the Papilio cinxia, Curculio and Chryſomela Beccabungæ.

Pimpernel VERONI'CA *Anagal'lis*. Bunches lateral. Stem upright. Leaves ſpear-ſhaped, ſerrated.—

Ger. 496. 3. *Pet* 51. 12. *Ger.* 496. 2. *cop. in Ger. em.* 620. 2, *Riv.* 100. *(referred by Trew in Blackw. auct. to his leſſer var. of V. Beccabunga.) J. B.* iii. 791. 1. *Blackw. auct.* 48. 3. *a branch. H. ox.* iii. 24. 25.

Bunches numerous. *Seeds* very ſmall. SCOP. *Bloſs.* pale purple.

Long-leaved Brook-lime. Water Pimpernel.

Slow ſtreams and ſhallow ponds. (Ditches about Tamworth. W.) P. July. Aug.

Cows, Goats, and Sheep eat it. Horſes and Swine refuſe it.

VERONI'CA *ſcutella'ta*. Bunches lateral, alternate. Little fruit-ſtalks pendant. Leaves very entire; ſtrap-ſhaped.— *narrow-leaved*

Riv. 96. *V. paluſtris anguſtifolia. Fl. dan.* 209. *J. B.* iii. 791. 2. *H. ox.* iii. 24. 27.

Bunches ſlender, limber, wide-ſpreading. LINN.

Stems angular. *Fruit-ſtalks* branched; ſhorter than the leaves. *Cup* ſmall. *Caps.* 4 ſeeds generally in each cell. SCOP.

Leaves always finely toothed. JACQ. enum. (as in fig. of Fl. dan. ST.)

Leaves oppoſite; betwixt ſtrap and ſpear-ſhaped; ſet with 2 or 3 pair of very minute teeth; *lower leaves* with moſt teeth. *Stem* often trailing and ſending out roots from the joints. *Bloſs.* white or purpliſh. WITH.

Poor ſwampy ſoil. [Boggy meadows near Bungay, and in the fens of Cambridgeſh. Mr. WOODWARD.] P. June. Aug.

Eaten by Cows, Goats, Sheep, and Horſes. Swine refuſe it.

VERONI'CA *monta'na*. Bunches lateral; of only few flowers. Cup rough with hair. Leaves wrinkled; egg-ſhaped, ſcolloped; on leaf-ſtalks. Stem feeble.— *ſtalked*

Bunches elongated, thread-ſhaped. Leaves blunt, ſerrated; ſerratures thick. Stem and leaf-ſtalks rough with hair. LINN. the SON. Capſule longer than the cup. *From* CURTIS.

Jacq. fl. 109. *Curt. n.* 37 *faſc.* iv. *H. ox.* iii. 23. 15. *Pet.* 51. 4. *Riv.* 93.

Stem creeping. *Cups* with 4 clefts. *Leaves* red underneath. *Bunches*, as in the *V. ſcutellata*, ſlender; much longer than the leaves; with few flowers. *Fruit* round and flat; notched at the top and at the baſe. LINN.

Bloſs. lower ſegment white. *Seeds* 4 in each cell; flat, egg-ſhaped; with an eye. HALL. *gott.* 235. *Leaves* ſometimes heart-ſhaped. SCOP.

Mountain Madwort.

Hedges and moiſt woods. [Wood at the weſt end of Powick Ham, near Worceſter. Dr. STOKES.] P. May.

VERONI'CA *Chamæ'drys*. Bunches lateral. Leaves egg-ſhaped, wrinkled, toothed, without leaf-ſtalks. Stem feeble.— *Germander*

Capſule a little ſhorter than the cup. JACQ.

Curt. n. 4. *faſc.* i. *Fuch.* 872; *copied by Trag.* 203. *and J. B.* iii. 286. 1. *Fl. dan.* 448. *Walc. Ger.* 530. 4. *Riv.* 94. *V. prat. latif. Clus.* i. 352. 1. *reprinted by Ger. em.* 657. 3. *and Lobel. obs.* 259. 4. *and ill copied in H. ox.* iii. 23. 12.

Leaves fibred, jaggedly toothed, woolly; their breadth more than 1-half the length; lower ones oval, upper ones heart-ſhaped.

Threads

Threads at the baſe and point, and throat of the bloſs. white. *Duſt* white. *Shaft* whitiſh at the baſe. *Summit* reddiſh. *Seed-bud* woolly. SCOP.

Leaves betwixt heart and egg-ſhaped. *Fruit-ſtalks* and ſegments of the cup, hairy: theſe hairs, when magnified, appear terminated by minute globules. (See Pl. 13. f. 2.) *Bloſs.* a fine blue. *Bunches* long, oppoſite, upright. WITH.

Wild Germander.

Paſtures; ſides of hedges. P. May.

The leaves are a better ſubſtitute for Tea than thoſe of the *V. officinalis*, being more grateful and leſs aſtringent. Cows and Goats eat it, Sheep, Horſes, and Swine refuſe it.

* * * *Fruit-ſtalks with* 1 *flower.*

procumbent VERONI'CA *agreſtis.* Flowers ſolitary. Leaves heart-ſhaped, jagged, ſhorter than the fruit-ſtalk.—

Leaves on Leaf-ſtalks. HUDS. Stem trailing. CURT.

Curt. n. 7. *faſc.* i. *Fl. dan.* 449. *Riv.* 99. *V. fol. chamædryos. Walc. Fuch.* 22. *copied by J. B.* iii. 367. 1. *H. ox.* iii. 24. 22. *Dod.* 31. 2. *reprinted by Ger. em.* 616. 1. *and copied by Park.* 764. 4. *bad.*

Bloſs. blue; ſometimes white. LINN.

Segments of the cup egg-ſhaped, equal. GOUAN.

Flowers early in April, often in March. *Bloſs.* with ſome blue and ſome white ſegments. *Seeds* from 4 to 8 in each cell. Mr. DICKENSON.

Germander—Chickweed.

Paſtures and ploughed fields. A. April.

Cows, Goats, Sheep, and Horſes eat it.

wall VERONI'CA *arvenſis.* Flowers ſolitary. Leaves heart-ſhaped, jagged, longer than the fruit-ſtalk.—

Sitting. HUDS. The lower ones on leaf-ſtalks. CURT.

Col. phyt. 8; *well copied by J. B.* iii. 367. 2. *Curt. n.* 23. *faſc.* ii. *Ger.* 489. 8. *Ger. em.* 613. 7; *copied by Park.* 762. 4. *(H. ox.* iii. 24. 21. *bad. Seems more to reſemble the V. verna.) (Fl. dan.* 515, *a different ſpecies? I have ſince obſerved with pleaſure that the accurate* RETZIUS, *in his prodr. flor. Scandinav. ſubjoins a mark of doubt to his reference to this plate.)*

Cups longer than the fruit-ſtalk. SCOP.

Leaves hairy, marked with 3 longitudinal grooves; upper leaves ſitting. Flowers about a month later than the *V. agreſtis.* Mr. DICKENSON.

Cup with ſpear-ſhaped unequal ſegments. GOUAN. *Bloſs.* pale blue.

Speedwell—Chickweed.

Old walls; amongſt rubbiſh; and fallow fields. A. May.

Horſes eat it.

VERO-

VERONI'CA *hederifo'lia*. Flowers ſolitary. Leaves heart-ſhaped, flat, divided into 5 lobes.— *ivy-leaved*

Curt. n. 19. *faſc.* ii. *Walc. Fl. dan.* 428. *Riv.* 99. *V. fol. hederæ. Dod.* 31. 1. *reprinted by Lob. obs.* 247. 1. *and Ger. em.* 616. 3; *copied by Park.* 762. 3. *J. B.* iii. 368. 2. *H. ox.* iii. 24. 20. *(Buxb. cent.* i. 40. 1. *ſhould ſeem from the bloſs. to be a different ſpecies.)*

Seeds with a dimple at the top; 2 in each cell of the capſule. LINN.

Leaves ſometimes with 3 lobes. *Cup* with oblong, heart-ſhaped ſegments, longer than the bloſs. *Bloſs.* when fallen off, 4 cornered. *Seeds* yellowiſh, wrinkled, adhering to a 4 cornered receptacle: they ripen in 28 days. SCOP.

Root-leaves 2; oppoſite, oblong. Mr. HOLLEFIAR.

Stem compoſed of a hollow cylinder, ſurrounding a ſtrong, elaſtic, thread-ſhaped fibre, as in the *Alſine media* (ſee Pl. 13. f. 3.) One *fruit-ſtalk* ariſes from the boſom of each leaf. *Middle ſegm.* of the leaves far the broadeſt. *Cup* fringed at the edges with long taper white hairs. *Bloſs.* blue. Sown in a garden I have ſeen it half a yard high. WITH.

Small Henbit. Ivy Chickweed.

Hedge banks; ploughed fields. A. April. May.

VERONI'CA *triphyl'los*. Flowers ſolitary. Leaves with fingered diviſions. Fruit-ſtalks longer than the cup.— *trifid*

J. B. iii. 368. 1. *Fl. dan.* 627. *habit well expreſſed. Riv.* 96. *V. fol. rutæ. (Ger. em.* 612. 5. *copied by Park.* 1260. 6, *and in H. ox.* iii. 24. 23. *very ill done, or a different plant, a conjecture juſtified by its fingered leaves, large bloſs. and flowers as it were in broad-topped ſpikes.)*

Leaves ſhorter than the fruit-ſtalks; reddiſh underneath. SCOP.

Root-leaves heart-ſhaped, jagged. *Bloſs.* blue. *Capſules* large; deeply notched. Mr. WOODWARD.

Right, or upright Chickweed.

Sandy fields. [Near Cock-ley Cley, Norfolk, and Bury, Suffolk, Mr. WOODWARD.] A. April. May.

Cows, Goats, and Sheep eat it.

VERONI'CA *ver'na*. Flowers ſolitary. Leaves with fingered diviſions. Fruit-ſtalks ſhorter than the cup.— *vernal*

Roſe. 2. 1. *Fl. dan.* 252. *H. ox.* iii. 24. 21?

Stem ſtiff, upright. LINN.

Cup much longer than the bloſs. and deeply divided into 4 ſpear-ſhaped, blunt, unequal ſegments. *Bloſs.* blue; green at the baſe. *Tips* white. *Summit* ſlightly fringed. *Floral-leaves* ſpearſh. blunt. *Fruit-ſtalks* very ſhort. WITH.

Dry,

Dry, barren ſoil; old walls and rocks. [Near Bury, in the moſt dry and driving ſand: the plant is frequently nearly buried in it. Mr. WOODWARD.] A. April. May.

33. PINGUIC'ULA. Butterwort.

EMPAL. *Cup* gaping; ſmall; ſharp; permanent. *Upper lip* upright; with 3 clefts; *lower lip* reflected; cloven.

BLOSS. 1 petal, gaping. *Longer lip* ſtraight, blunt, with 3 clefts; falling back: *ſhorter lip* cloven, ſomewhat blunt and expanding. *Honeycup* horn-ſhaped, being a production of the lower and hinder part of the petal.

CHIVES. *Threads* 2; cylindrical; crooked; aſcending; ſhorter than the cup. *Tips* roundiſh.

POINT. *Seed-bud* globular. *Shaft* very ſhort. *Summit* with 2 lips; *upper lip* large; flat; reflected; covering the tips; *lower lip* ſhort; very narrow; upright; cloven.

S. VESS. *Capſule* egg-ſhaped; of 1 cell; compreſſed, and opening, at the point.

SEEDS. Many; cylindrical. *Receptacle* looſe.

ESS. CHAR. *Bloſs. gaping; ending in a ſpur. Cup with 2 lips and 5 clefts. Caps. 1 cell.*

common PINGUIC'ULA *vulga'ris*. Honeycup cylindrical, the length of the petal.—

Fl. dan. 93. *Clus.* i. 310. 2. *reprinted by Ger. em.* 788. 2. *Ger.* 644. *J. B.* iii. 546. 1. *Park.* 532. 2. *H. ox.* v. 7. 13.

Leaves covered with ſoft upright prickles, ſecreting a glutinous liquor. *Bloſs.* violet, purple and reddiſh, with white lips, and an aſh-coloured woolly ſpot on the palate. LINN.

Butterwort. Yorkſhire Sanicle.

On Bogs. [Broadmoor, about 3 miles S. Weſt of Birmingham. Mr. BRUNTON. On the N. W. ſide of Malvern hills, but not on the S. or S. E. ſide. Mr. BALLARD.] P. May.

If the freſh gathered leaves are put into the filtre or ſtrainer through which warm milk from the Rein Deer is poured, and the milk is ſet by for a day or two to become aceſcent, it acquires conſiſtence and tenacity; the whey does not ſeparate, nor does the cream; in this ſtate it is an extremely grateful food, and as ſuch is uſed by the inhabitants in the North of Sweden. There is no further occaſion to have recourſe to the leaves, for half a ſpoonful of this

this prepared milk, mixed with freſh warm milk, will convert it to its own nature; and this again will change another quantity of freſh milk, and ſo on without end. (This did not ſucceed when tried with Cows milk. Mr. HAWKES.) The juice of the leaves kills lice; the common people uſe it to cure cracks or chops in Cows elders. LINN.—The plant is generally ſuppoſed injurious to Sheep: occaſioning a diſeaſe which the farmers call the Rot. But it may be made a queſtion, whether the Rot in Sheep is ſo much owing to the vegetables in marſhy grounds, as to a flat inſect called a Fluke *(Faſciola hepatica)* which is found in theſe wet ſituations adhering to the ſtones and plants, and likewiſe in the livers and biliary ducts of Sheep that are affected with the Rot.—From experiments made on purpoſe, and conducted with accuracy, it appears, that neither Sheep, Cows, Horſes, Goats, nor Swine, will feed upon this plant.

PINGUIC'ULA *villo'ſa*. Stalk with a ſlight woolineſs.— *hairy*

Lightf. 6. 1.—*Fl. lapp.* 12. 2.

Stalk very ſlender; not very evidently pubeſcent. *Bloſs.* violet-coloured; *Spur* ſtanding out. In all its dimenſions 6 times ſmaller than the *P. vulgare*. LINN.

Leaves tender and delicate; the edges approaching. Veins purpliſh. HUDS.

Honeycup ſhorter than the petal; nearly cylindrical, blunt. LIGHTFOOT.

Leaves roundiſh. *S. Veſſ.* heart-ſhaped; of 2 valves.

Marſhes in Dorſetſh. Hampſh. Devonſh. and Cornwall, frequent. HUDS.

Near Air, and in the iſland of Lamlaſh, Scotland. Dr. HOPE. P. June. July.

PINGUIC'ULA *alpi'na*? Honeycup conical. Shaft ſhorter than the petal.— *mountain*

Fl. dan. 453.—*Gunn.* ii. 4. 4.—*Fl. lapp.* 12. 3, *from a dried ſpecimen.*

Bloſs. white; woolly ſpot on the palate yellow. *Spur* converging, blunt. *Threads* bowed inwards at the baſe, touching near the ſeed-bud. *Tips* flatted, yellowiſh. *Caps.* 2 edged at the point, pubeſcent; hairs knobbed. *Seeds* to 180; oblong, brown, ſcored at the point; fixed to a roundiſh, ſtalked receptacle. SCOP.

Said to have been found in Orkney, and between Erwin and Air, but ſuſpected to have been the *P. villoſa*. LIGHTF. P.

34. UTRICULA'RIA. Bladder-ſnout. *(Petiv.)*

EMPAL. *Cup* 2 leaves; leaves very ſmall, egg-ſhaped, concave, deciduous.

BLOSS. 1 petal, gaping. *Upper lip* flat, blunt, upright. *Lower lip* large; flat; entire. A heart-ſhaped *palate* ſtanding prominent betwixt the lips. *Honeycup*, like a little horn, grows from the baſe of the petal.

CHIVES. *Threads* 2; very ſhort; bent inwards. *Tips* ſmall and adhering together.

POINT. *Seed-bud* globular. *Shaft* thread-ſhaped; as long as the cup. *Summit* conical.

S. VESS. *Capſule* large; globular; of 1 cell.

SEEDS. Many.

ESS. CHAR. *Bloſs. gaping, ending in a ſpur. Cup* 2 *leaves, equal. Caps.* 1 *cell.*

OBS. The plants of this genus are very remarkable; the roots being loaded with ſmall membranaceous bladders.

greater

UTRICULA'RIA *vulga'ris*. Honeycup conical. Stalk bearing but few flowers.—

Fl. dan. 138.—*Riv.* 79, *cop. by Petiv.* 36. 11.—*Ger. em.* 828. 5. *cop. by J. B.* iii. 783. 3. *and by Park.* 1258, 9, *with an additional fig.—Parts of fructification, Schmied.* 21. 12, *at the bottom.*

Cup permanent; its lower leaf very ſlightly notched at the end. *Bloſs.* full yellow; with purpliſh red ſtreaks. *Honeycup* conical, blunt, lined with minute, ſhining, globular glands. *Threads* thick, fleſhy, crooked; fixed to the baſe of the ſeed-bud. *Summit* 2 lips; one very ſmall; the other broad, flat, thin, fringed at the edge. After the impregnation of the Seed-bud this larger lip cloſes the aperture of the Shaft. *Stalk* cylindrical, ſcaly towards the top, and dividing into three. *Leaves* in whorls; thread-ſhaped, greatly branched and forked; ſet with minute whitiſh harmleſs thorns, and hollow bags, which have a glandular appearance; they contain a tranſparent watery fluid, and a ſmall bubble of air. They are pear-ſhaped but rather compreſſed; with an open border at the ſmall end, from the edges of which ariſe 3 or 4 very ſlender fibres, which perhaps are the real roots of the plant. See Pl. 13. fig. 4. (a) a ſmall branch with its thorns. (b) the open border with the roots. (c) the cavity of the bag, filled with a bubble of air and a watery fluid. This fluid, when greatly magnified, appears to contain a quantity of extremely minute ſolid particles. WITH.

Hooded

Hooded Water-milfoile.

Wet ditches and ſtagnant waters. [In ſhallow water on Birmingham Heath. W.] P. July.

UTRICULA'RIA *mi'nor.* Honeycup keeled.— *leſſer*

Schmied. 21.—*Fl. dan.* 128.—*Pluk.* 99. 6, *cop. by Pet.* 36. 12.

Honeycup obſolete; pointing downwards. *Mouth of the bloſs.* open, gaping; without a prominent palate. *Roots* hair-like, very ſlender, ſwimming; beſet with ſmall membranaceous bladders. *Stalk* as long as one's finger, ſimple, very ſlender; dividing towards the top into 3 fruit-ſtalks with 3 floral leaves. *Root-leaves* winged, hair-like; little leaves few; equal. *Cup* with the lower leaf reflected.. *Bloſs.* 2 petals, gaping. *Upper lip* horizontal, heart-ſhaped, perforated at the baſe, fixed to the receptacle. *Lower lip* larger, heart-ſhaped, reflected at the ſides; bellied at the baſe on the under ſide, prominent and keel-ſhaped. *Seed-bud* egg-ſhaped. *Shaft* ſimple, ſhort. *Summit* betwixt egg and tongue ſhaped. *Bloſs.* a paler yellow than the preceding ſpecies. LINN.

Ditches and muddy ponds. [St. Faith's Bogs near Norwich. Mr. PITCHFORD.] P. June. July.

36, LYC'OPUS. Gypſie-wort.

EMPAL. *Cup* 1 tubular leaf, with 5 ſhallow clefts; *ſegments* narrow and ſharp.

BLOSS. 1 unequal petal. *Tube* cylindrical, as long as the cup. *Border* with 4 clefts; blunt, open; *ſegments* nearly equal, but the *lowermoſt* ſomewhat ſmaller; the *uppermoſt* ſomewhat broader than the others, and notched at the end.

CHIVES. *Threads* 2; diſtant; generally longer than the bloſſom, and bending under its upper ſegment. *Tips* ſmall.

POINT. *Seed-bud* with 4 clefts. *Shaft* thread-ſhaped; ſtraight; as long as the chives. *Summit* cloven; reflected.

S. VESS. None.

SEEDS. 4: roundiſh; at the bottom of the cup.

ESS. CH. *Bloſs. with* 4 *clefts; one ſegment notched at the end. Chives diſtant. Seeds* 4, *rounded.*

Horehound LYC'OPUS *europæ'us.* Leaves indented and ſerrated. —

Curt. n. 34. *faſc.* iii.—*Riv.* 22. *Pſeudo-marrub. pal.*—*Math.* 1002.—*Dod.* 595. 2; *repr. by Lob. obs.* 283. 2. *and Ger. em.* 700. 1, *and cop. by Park.* 1230. 1.—*Pet.* 32. 5.—*H. ox.* xi. 9. 20.—*Trag.* 9. 2.—*J. B.* iii. 318. 2.

Cup with 4 or 5 cleſts; ſegments unequal, with 3 ſcores on the inſide, and a rib upon the back, which ſhoots out into a taper ſharp point. *Bloſs.* whitiſh, with a tinge of purple; ſomewhat hairy within. *Tube* ſhorter than the cup: upper ſegment ſlightly notched at the end; lower one with a few purpliſh ſpots on the inſide. *Chives,* threads crooked. Betwixt theſe 2 chives it is not uncommon to find 2 other *ſhorter threads* without tips; and I once found theſe ſhorter threads furniſhed with tips. *Seed-bud* ſitting upon a yellow glandular receptacle. *Shaft* crooked. *Stem* with 4 corners and 4 hollow ſides; a little hairy. *Branches* oppoſite, riſing from the boſom of the leaves. *Leaves* a little hairy. *Flowers* ſeveral together in the boſoms of the upper leaves. WITH.

jagged VAR. 2. *diſſec'tus.* Leaves deeply divided.

Barr. 154.—*H. ox.* xi. 9. 21.—*Pluk.* 45. 1.

Water Horehound.

Sandy ground on the banks of ſtreams and ponds. P. July. Sept.

It dyes black. The juice gives a permanent colour to linen, wool, and ſilk, which will not waſh out; travelling gypſies ſtain their faces with it.—Sheep and Goats eat it. Cows and Horſes refuſe it.—The *Caſſida viridis* feeds upon it.

42. SAL'VIA. Sage.

EMPAL. *Cup* 1 leaf, tubular, ſcored; enlarging gradually upwards and compreſſed at the top. *Rim* upright; with 2 lips; *lower lip* with 2 teeth.

BLOSS. A ſingle petal. *Tube* compreſſed, enlarging gradually upwards. *Border* gaping; *upper lip* concave, compreſſed; bowed inwards; notched at the end. *Lower lip* broad, with 3 clefts; the *middle ſegment* largeſt; roundiſh, notched at the end.

CHIVES. *Threads* 2; very ſhort, ſupporting 2 others croſs-wiſe by the middle, which have *glands* at one end, and *tips* at the other.

POINT. *Seed-bud* with 4 clefts. *Shaft* thread-ſhaped; very long; adjoining the chives. *Summit* cloven.

S. VESS. None; the *cup* cloſing a little, contains the ſeeds in its bottom.

SEEDS. 4; roundiſh.

ESS. CH. *Bloſs unequal. Threads fixed tranſverſely to a little footſtalk.*

OBS. The rudiments of two chives appear in the mouth of the bloſſom, but they have no tips. The glands in moſt ſpecies are callous, but in a few they appear like tips, and ſometimes contain a ſmall quantity of duſt.

SAL'VIA *praten'ſis*. Leaves oblong heart-ſhaped, ſcolloped; upper leaves embracing the ſtem. Flowers in whorls with hardly any intermixture of leaves. Helmet of the bloſſom gummy.— *meadow*

Fuch. 569; *cop. by Trag.* 53, *and more exactly by Dod.* 293. 1; *repr. by Ger. em.* 769. 3.—*Riv.* 36.—*Ger.* 627. 3.—*H. ox.* xi. 13. 10.—*Clus.* ii. 30. 1. *repr. by Ger. em.* 771. 4, *and cop. by J. B.* iii. 312. 2. *(Lob. obs.* 300. 2. *and J. B.* iii. 311. 2. *referred to in the German ſynonyms, are a reimpreſſion and copy of Clus.* ii. 30. 2. *which is a different plant.) Blackw.* 258, *is S. verbenaca.*

Flowers 6 in a whorl. *Cups* expanding horizontally; upper lip with 3 plaits uniting at the point; the lower with 8 elevated lines. *Bloſs.* helmet-folded, blunt, hook-ſhaped. *Tube* filled with a ſweet liquor, of which bees are very fond. *Glands* marked with 2 teeth tapering downwards, bowed inwards, adhering; cloſing the throat of the bloſs. SCOP.

Cup, upper lip inverſely heart-ſhaped. *Bloſs.* bluiſh purple, 4 times as large as the cup. *Tips* deep purple. *Duſt* yellow. *Stem*, *leaves*, and *fruit-ſtalks* hairy; the hairs upon the latter ſupporting tranſparent globules. *Leaves* wrinkled. WITH.

[Surry and Suſſex, common. ST.—Caſtle-hill, Tamworth, W.] P. July.

Sheep and Goats eat it. Cows and Horſes refuſe it.

wild SAL'VIA *verbena'ca*. Leaves indented, ſerrated, ſmoothiſh. Bloſſoms more ſlender than the cup.—

Clus. ii. 31. 1; *repr. by Ger. em.* 771. 1, *and cop. by Park.* 57. 8.—*Black.* 258.—*Barr.* 208.—*H. ox.* xi. 14. 33.—*Ger.* 628, *is a fig. of ſome other ſpecies.*

Cup, its upper lip with 3 very ſhort teeth. *Bloſs.* blue; its outſide ſprinkled with white globules. *Summit* a fine deep purpliſh blue. *Stem* 4 cornered; hairy. *Flowers* 6 in a whorl; the upper whorls almoſt contiguous; the lower ones more and more diſtant. WITH. *Wild Clary.*

Meadows and paſtures. [Plentiful about Kinfare, Staffordſhire. Mr. BRUNTON.] P. June.

25. CIRCÆ'A. Enchanters-wort.

EMPAL. *Cup* 2 egg-ſhaped, concave leaves; a little bent outwards; deciduous.

BLOSS. *Petals* 2; inverſely heart-ſhaped; expanding; equal; ſhorter than the cup.

CHIVES. *Threads* 2; hairlike; upright; as long as the cup. *Tips* roundiſh.

POINT. *Seed-bud* turban-ſhaped: beneath. *Shaft* thread-ſhaped, as long as the chives. *Summit* blunt; notched at the end.

S. VESS. *Capſule* betwixt egg and turban-ſhaped; covered with ſtrong hairs; with 2 cells, and 2 valves; opening from the baſe upwards.

SEEDS. Solitary; oblong, narrow towards the baſe.

ESS. CH. *Bloſs.* 2 *petals*. *Cup* 2 *leaves*, *ſuperior*. *Seed* 1; *cells* 2.

OBS. In moſt plants the ſeeds are produced within the empalement or bloſſom; but this genus is an exception, the ſeed-bud being beneath them.—The number 2 prevails here very remarkably; 2 leaves to the empalement, 2 petals, 2 chives, 2 cells and 2 valves to the ſeed veſſel, and ſometimes 2 ſeeds. ST.

CIR-

CIRCÆ'A *lutetia'na*. Stems upright, ſupporting ſeveral bunches of flowers. Leaves egg-ſhaped.— *common*

Ger. 280.—*Fl. dan.* 210. *confirmed by* OED. HALL. LIGHTF. *and* HUDS. *the reference in Syſt. Veget. being probably an error of inadvertency.—Lob. obs.* 137. 1; *repr. by Ger. em.* 351. 1; *and cop. by Park.* 351. 1.—*J. B.* ii. 977. 1; *with a ſingle flower at the bottom.*———*Is Curt. n.* 37. *faſc.* iii. *ſtem and leaves ſmooth, H. ox.* v. 34. *row* 3. 1. *leaves ſmooth and gloſſy, and perhaps Fl. dan.* 256, *a ſmooth var. or the alpina?*

Stem a foot and half high; upright. *Leaves* ſomewhat ſerrated, dull. *Bunches* terminating and lateral. *Empal.* much thicker and of a coarſer texture than the bloſſom, and not of the ſame colour. LINN.

Stem woolly. *Leaves* elliptical, ſlightly hairy. *Chives* longer than the cup. *Fruit-ſtalks*, when the fruit is ripe, bent downwards. *Hairs* of the fruit hooked. SCOP.

Root toothed. *Stem* upright, a cubit high; branching. *Leaves* nearly heart-ſhaped, but without the hollow at the baſe: on long leaf-ſtalks; the edges ſometimes entire, ſometimes undulated, ſometimes ſerrated and fringed; but moſtly ſerrated. *Fruit-ſtalks* rather long; ſomewhat hairy, expanding, and on the ripening of the ſeed, bent back. *Bloſs.* white, or fleſh-coloured. *Empal.* greeniſh red, in texture unlike the bloſſom. HALL.

Bunch moſtly ſolitary. *Emp.* green; red at the points. RETZ. *obs.* i. *p.* 9.

Stems ſomewhat creeping, green. The plant correſponds with Scopoli's character. Mr. WOOD.

Whole plant pubeſcent. *Leaves* heart-egg-ſhaped, taper pointed, betwixt toothed and ſerrated, the points being directed towards the end of the leaf, but the margin between the points hollowed out. *Empal.* when magnified, beſet with ſhort cylindrical hairs, ending in heads, juſt ſenſibly thicker than the body of the hair. ST.

Leaves a little woolly. *Cup* with its leaves reflected, betwixt egg and ſpear-ſhaped; coloured. *Petals* reddiſh white, alternating with the leaves of the cup. *Threads* thickeſt towards the top; white. *Tips* white. *Duſt* 3 cornered. *Seed-bud* hairy, egg-ſhaped but compreſſed; placed under, and at a ſmall diſtance from, the cup. *Shaft* thickeſt upwards, with a double green gland at its baſe. *Summit* a fine pink colour. *Caps.* ſet with white hairs, hooked at the end. *Seeds* 2. *Stems* and *branches* cylindrical; a little woolly; ſometimes red at the joints. *Leaves* on leaf-ſtalks, oppoſite; betwixt egg and ſpear-ſhaped; a little woolly, and glandular at the edges. *Little fruit-ſtalks* after flowering, pointing downwards. WITH.

Inchanters Nightſhade.

Woods and moiſt hedge bottoms, common. P. July. Aug.

It is eaten by ſheep.

mountain CIRCÆ'A *alpi'na.* Stem proſtrate, ſupporting a ſingle bunch of flowers. Leaves heart-ſhaped.—

Curt. n. 34. *faſc.* iii.—*H. ox.* v. 34. *row* 3. 2. *a very luxuriant ſpecimen.—Fl. dan.* 256, *confirmed by* OED. HALL. LIGHTF. *and* HUDS. *the reference in Murray's edit. of Syſt. Veget. to* 210, *being a miſtake.*

Stem proſtrate, ſcarcely a finger's length. *Leaves* heart-ſhaped, toothed, ſhining. Different from the *C. lutetiana*, but nearly allied to it. LINN.

Theſe ſpecies certainly diſtinct—SCOP. and Mr. WOODWARD; but the ſpecific diſtinctions do not depend on the direction of the ſtems, the number of the branches, or the colour of the empalement, but in the figure, &c. of the *Leaves*, which are heart-ſhaped, toothed, ſmooth. *Stem* aſcending. SCOP.

Of a delicate texture. *Stem* upright, from 3 to 6 inches high; ſmooth. *Leaves* ſmooth; deeply cut at the edges, and more diſtinctly heart-ſhaped. *Leaf-ſtalks* ſmooth. *Empal.* red. *Bunches* rather more numerous than in the *C. lutetiana.* Cultivated in a garden it does not become the *C. lutetiana*, neither is it a variety of that. HALL.

Empal. ſmooth. *Leaves* deeply cut, or ſerrated. LIGHTF.

Bunch. often only 1, ſometimes 2, or 3. *Leaves* of a yellower green. Sometimes ſix inches high. Correſponds with Scopoli's character, and does not materially differ from Mr. Curtis's *C. lutetiana.* If not the *C. alpina* it is at leaſt a ſtriking variety of the *C. lutetiana.* Found about Leeds. Mr. WOOD.

Two ſpecimens from botanic gardens, and the ſame with Mr. Wood's, exactly accord with the above deſcriptions, except that they are 10 inches high. *Empal.* ſmooth. *Stems* ſmooth; joints red. *Leaves* heart-ſhaped. *Bunches* from 1 to 5. *Empal.* white; its points green. RETZ. *obs.* i. *p.* 9. *Emp.* very red. REYGER. *ib.*

Inchanters Nightſhade.

[Rocky Woods in Lancaſhire, Weſtmorland, and Cumberland. Mr. WOODWARD.] P. July.

Sheep eat it.

Order

Order II.

DIGYNIA. II. POINTALS.

46. ANTHOXAN'THUM. Vernalgraſs. *(Ray.)*

Pl. II. fig. 1.

EMPAL. *Huſk*, 2 valves containing 1 flower. *Valves* concave, egg-ſhaped, taper; the innermoſt the largeſt.

BLOSS. *Huſk* 2 valves, the length of the larger valve of the empalement. Each valve ſends out an awn from its back, at the lower part; and one of the awns is jointed. *Honeycup* 2 leaves, very ſlender, cylindrical. The leaves nearly egg-ſhaped, and one enfolding the other.

CHIVES. *Threads* 2; hair-like; very long. *Tips* oblong; forked at each end.

POINT. *Seed-bud* oblong. *Shafts* 2; thread-ſhaped. *Summits* ſimple.

S. VESS. The *Huſk* of the bloſſom grows to the ſeed.

SEED. Single, cylindrical, tapering at each end.

ESS. CH. *Empal. huſk of 2 valves, containing 1 flower. Bloſs. huſk 2 valves; pointed. Seed 1.*

ANTHOXAN'THUM *odora'tum*. Spike oblong egg-ſhaped. Florets longer than the awns, ſupported on ſhort fruit-ſtalks. *ſweet-ſcented*

Curt. n. 9. *faſc.* i.—*Schreb.* 5.—*Giſeke.* 2.—*Fl. dan.* 666.—*Stilling. f.* 1. *out of bloſs. Mus. ruſt.* iv. 2. 3.—*J. B.* ii. 466. 1.—*Anders. Barr.* 124, *ſingle ſpike good.*—*C. B.* 44. 1.—*H. ox.* viii. 4. *row* 2. 25. *and* 7. *row* 3. 25. *both bad.*—*Spike, and parts of fructification, Leers* 2. 1.—*Seguier.* i. 4. 2.—*Mont.* 84.

Spike-like panicle. *Empal.* longer than the bloſs. *Petals* unequal, blunt, with a ſlight woollineſs. *Awn* of one petal ſhorter, upright, proceeding from the middle of the petal; that of the other longer, toothed, proceeding from the baſe. *Tips* reddiſh, cloven at each end; cleft ſtraddling. *Seed-bud* tapering. *Shafts* twice as long as the chives. SCOP.

Empal. The *outer valve* ſkinny, and ſheathing the baſe of the *inner*, which is much ſtronger. *Threads* ſhort, at the firſt opening of the bloſſom, afterwards very long. *Summits* woolly.

woolly. It is remarkable, that before the expanſion of the bloſs. the *Seed-bud* and one end of the *Tips* are incloſed in the *Honeycup*. *Straw* cylindrical, ſmooth; when magnified it appears ſcored with green lines. *Leaves* ſcored; ſheathing the ſtraw; 2 or 3 upon each flowering ſtem. *Straw* with ſhining joints. WITH.

Empal. Valves ſprinkled over with minute yellow dots, ſimilar to thoſe of the *Ribes nigrum*, whence poſſibly its ſweet ſcent; ſometimes ſcattered over with ſoft white hairs. *Bloſs.* double. *The outer* entirely different from that of any other of the Graſſes, ſhorter than the leſſer valve of the empalement, its outſide covered to near the top with ſtiff brown hairs lying flat; *valves* ſtrap-ſhaped, cloven at the end, keeled, upright, ſtanding ſeparate, *that with the twiſted awn* narrowing downwards, and juſt ſenſibly ſhorter; *awns* upright, *the longer* where even with the top of the bloſſom bent aſide, below the flexure twiſted, dark brown, above whitiſh, tapering; *the ſhorter* as long as the empalement, inſerted above the middle of the valve, ſtraight, browniſh, tapering. *The inner* (*Nectarium*, LINN.) reſembling the bloſſom of a *Poa*, ſmooth; *outer valve*, oblong-roundiſh, yellowiſh brown, membranaceous at the edge: *inner valve* membranaceous, as narrow again.—Haller makes it one of his 2-*flowered Avenas*, but it is a genus truly diſtinct from all others. It has the awn of the *Avena*, the bloſs. of the *Poa*, and the double one of the *Phalaris*. In a natural arrangement it ſhould ſtand between the *Poa* and *Avena*. ST.

Spring graſs.

Meadows and paſtures, common. P. May. June.

This is one of the earlieſt of our graſſes, and is ſaid by Linnæus to occaſion the delightful ſmell of new-mown hay. Mr. Curtis ſays that the leaves, rubbed betwixt the fingers, impart a grateful odour. Boccone ſays a diſtilled water is prepared from it, as the vehicle of ſome perfumes. If it be gathered whilſt in bloſſom, lapped in a paper and carried in the pocket, it retains the ſmell of new-mown hay for a long time. W.

Cows, Goats, Sheep, and Horſes eat it.

Claſs III.

TRIANDRIA;

III. CHIVES.

THIS Claſs comprehends, beſides other plants, the greater part of thoſe vegetables commonly called GRASSES, and ſome others nearly allied to them. Although the flowers in theſe are generally diſregarded, they will not, to an attentive obſerver, appear leſs curiouſly conſtructed, than thoſe which boaſt of gayer colours and more conſpicuous parts.

NATURAL CHARACTER OF GRASSES.

EMPAL. A huſk; generally compoſed of 2 valves: the *larger* valve hollow; the *ſmaller* flat.

BLOSS. Strictly ſpeaking, none: but, inſtead thereof, a *Huſk* of 2 valves, dry and ſkinny. *Honeycup* of 2 leaves; oblong; very ſmall; ſuperior.

CHIVES. *Threads* 3; hair-like. *Tips* oblong; with 2 cells.

POINT. *Shafts* 2; downy; reflected. *Summits* downy.

S. VESS. None.

SEED. Single; incloſed either by the bloſſom or the empalement; oblong; tapering at each end.

STEM. Simple, ſtraight, hollow; with knots or joints: it is commonly called a *Straw*.

LEAVES. Entire; narrow; tapering to a point: 1 placed at each joint of the ſtraw.

MARTYN *Cat. Cant. p.* 11.

Beſides the plants which fall under this claſs, there are others of the graſs kind that differ in ſome of their characters, and are arranged accordingly. Thus, the ANTHOXANTHUM, or Vernalgraſs, has only two chives, and the HOLCUS, or Softgraſs, has its chives and pointals variouſly diſpoſed upon the ſame plant; *(See the figures in the plate of* Graſſes, *copied from the Amænitates Academic.* LINN.)

The great ſolicitude of nature for the preſervation of graſſes is evident from this; that the more the leaves

are

are conſumed, the more the roots increaſe. The great author of nature deſigned, that the delightful verdure of theſe plants ſhould cover the ſurface of the earth, and that they ſhould afford nouriſhment to an almoſt infinite number of animals. But what increaſes our admiration moſt, is, that although the GRASSES conſtitute the principal food of herbivorous animals, yet, whilſt they are left at liberty in the paſture, they leave untouched the ſtraws which ſupport the flowers; that the ſeeds may ripen and ſow themſelves. Add to this, that many of the ſeemingly dry and dead leaves of Graſſes revive, and renew their verdure in the ſpring. And on lofty mountains, where the ſummer heats are hardly ſufficient to ripen the ſeeds, the moſt common Graſſes are, the FESTUCA *ovina* (Sheep's Feſcue;) the POA *alpina* (Mountain Meadowgraſs;) and the AIRA *cæſpitoſa* (Turfy Hairgraſs;) all which are viviparous, and conſequently propagate themſelves without ſeeds.

In general, the leaves furniſh paſturage for cattle; the ſmaller ſeeds are food for birds, and the larger for men. But ſome are preferred to others; as, the FESTUCA (Feſcue) for Sheep; the POA (Meadowgraſs) for Cows; the PHALARIS (Canary) for Canary-birds and Linnets; the AVENA (Oat) for Horſes; the SECALE (Rye) HORDEUM (Barley) and TRITICUM (Wheat) for Man.

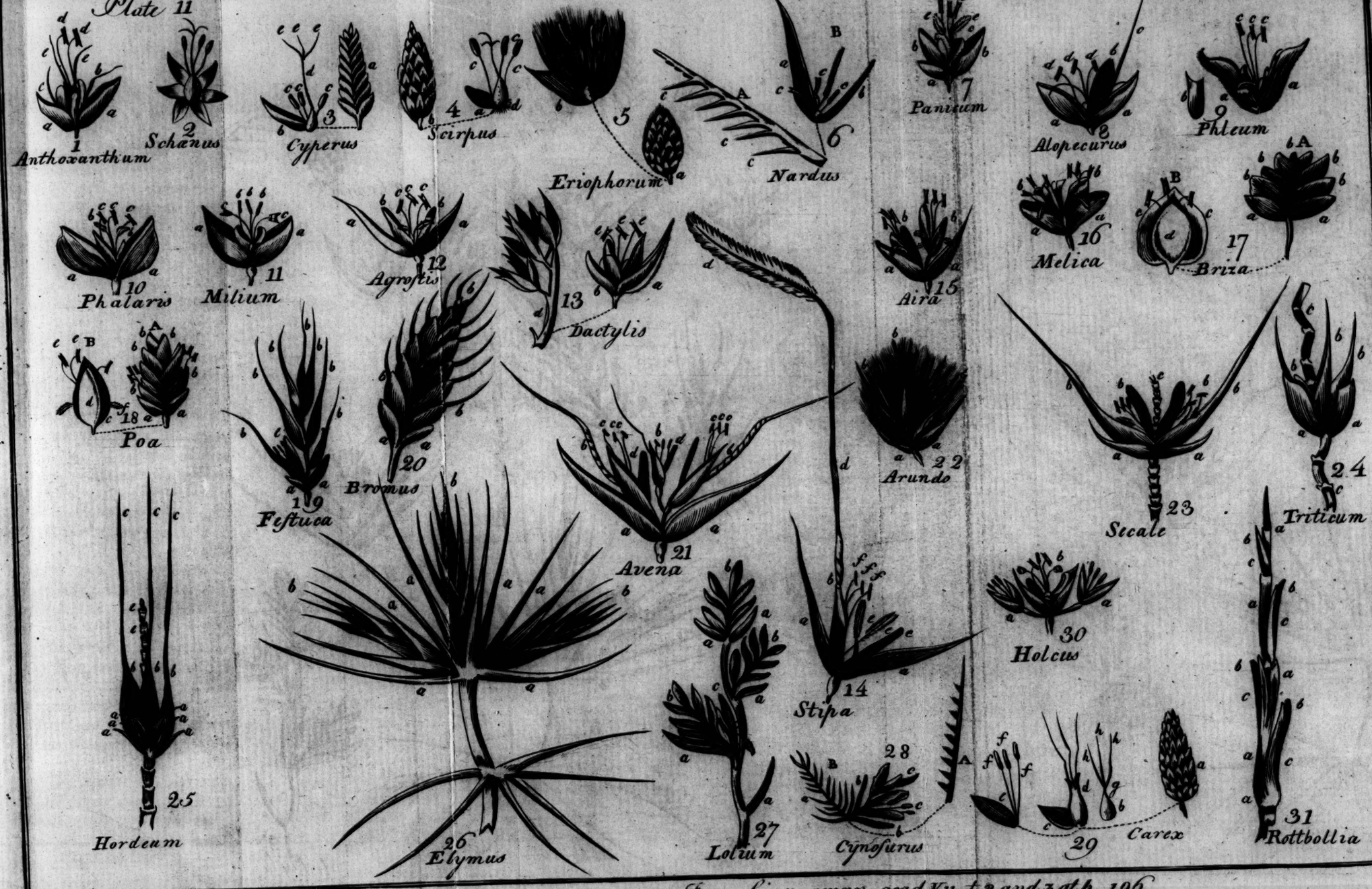
Variety of INSECTS too derive their nouriſhment from graſſes; as the *Papilio mæra*, *Pap. Ægeria*, *Pap. Galathea*, *Pap. Jurtina*, *Pap. Cinxia*, *Phalæna quercifolia*, *Ph. Potatoria*, *Ph. culmella*, *Chryſomela Graminis*, and ſeveral others which will be mentioned under the different ſpecies.

No part of Botany appeared to me more difficult than the ſtudy of GRASSES; but the method of accurate diſſection and obſervation once adopted, nothing was more certain or more eaſy. However, when the great importance of the ſubject is conſidered, we cannot labour too much to fix the public attention to it, by rendering it as eaſy as poſſible: for which reaſon the exceptions are carefully noted under each ſubdiviſion of the orders, and in the following plate an example is ſelected from each genus. To gain a clear idea of the ſtructure of the flowers, they muſt be examined juſt before the *Tips* diſcharge their duſt; and by comparing them in that ſtate with the figures in the plate, and with the generic deſcription,

GRASSES

to front page 29

Plate 11



From Linn. amæn. acad. VII. t. 2 and 3, at p. 196.

ſcription, every difficulty will ſoon be ſurmounted. The Botanic Microſcope will be found extremely uſeful in diſſecting the minuter parts.

EXPLANATION OF THE PLATE.

Fig. 1. ANTHOXAN'THUM *(Vernalgraſs.)* *a a* huſks of the empalement. *b* the awn of the inner valve of the bloſſom, twiſted and jointed. *c* the ſtraight awn of the outer valve of the bloſſom. *d d* the two tips. *e e* the two ſhafts.

Fig. 2. SCHŒ'NUS *(Ruſhgraſs.)* The ſix petals, the three chives, and tips; the ſeed-bud, the ſhaft, and the ſummit cloven into three parts.

Fig. 3. CYPE'RUS *(Galingale.)* *a* the tiled ſpike pointing from two oppoſite lines. *b* the ſcale of the empalement. *c c c* the tips. *d* the ſhaft. *e e e* the ſummits.

Fig. 4. SCIR'PUS. *(Clubgraſs.)* *b* the tiled ſpike. *a* the ſcale of the empalement. *c c c* the chives and tips. *d* the ſeed-bud, a little woolly.

Fig. 5. ERIOPH'ORUM *(Cottongraſs.)* *a* the woolly tiled ſpike. *b* the ſcale of the empalement including the hairy ſeed-bud, the chives, and the pointal.

Fig. 6. NAR'DUS *(Matgraſs.)* A the ſpike pointing one way. *c c c* the bloſſoms. B one of the flowers a little magnified. *a* the lower and larger valve which embraces the ſmaller valve *b*, which is here drawn out of its natural ſituation. *c c c* the tips.

Fig. 7. PAN'ICUM *(Panic.)* *b b* the two equal valves of the empalement. *a* the third ſmaller and outer valve. *c c* the valves of the bloſſoms. *d d d* the tips. *e e* the downy ſummits of the ſhafts.

Fig. 8. ALOPECU'RUS *(Foxtail.)* *a a* the valves of the empalement. *b* the ſingle valve of the bloſſom, with the awn *c* proceeding from its baſe. *d d d* the tips.

Fig. 9. PHLE'UM *(Timothygraſs.)* *a a* the huſks of the empalement opened and magnified to ſhew the bloſſom. *b* the floret in its natural ſtate to ſhew the two points at the top of it. *c c c* the tips.

Fig. 10. PHALA'RIS *(Canary.)* *a a* the keeled huſks of the empalement. *b b* the huſks of the bloſſom. *c c* the tips.

Fig. 11. MIL'IUM *(Millet.)* *a a* the huſks of the empalement. *b b b* the tips. *c c* pencil-ſhaped ſummits.

Fig. 12.

Fig. 12. AGRO'STIS *(Bent.)* *a a* the two pointed valves of the empalement. *b b* the two valves of the bloſſom. *c c c* the tips.

Fig. 13. DAC'TYLIS *(Cocksfoot.)* *a* the outer and larger valve of the empalement. *b* the ſhorter valve. *c* the keel-ſhaped valve of the bloſſom. *e e e* the tips. *d* the panicle pointing one way.

Fig. 14. STI'PA *(Feathergraſs.)* *a a* the valves of the empalement. *b* the outer valve of the bloſſom, with the awn jointed at the baſe and twiſted. *c* the inner valve of the bloſſom. *d d* the feathered awn. *e e* the hairy ſhafts and ſummits. *f f f* the tips.

Fig. 15. AI'RA *(Hairgraſs.)* *a a* the empalement. *b b* the bloſſoms, without the rudiment of a third betwixt them.

Fig. 16. MEL'ICA *(Melic.)* *a a* the empalement. *b b* the fertile bloſſoms with *e* the rudiment of a third bloſſom betwixt them.

Fig. 17. BRI'ZA *(Quakegraſs.)* *a a* the valves of the empalement. *b b b b b* the bloſſoms, of which the outer valves only are viſible. B one of the bloſſoms taken out of the little ſpike. *c c* the outer heart-ſhaped valve of the bloſſom. *d d* the inner valve inverſely egg-ſhaped.

Fig. 18. PO'A *(Meadowgraſs.)* A an entire little ſpike. *a a* the two huſks of the empalement. *b b b b b* the bloſſoms. B one of the florets ſeparated from the little ſpike. *c* the outer valve, *d* the inner valve of the bloſſom. *e e e* the forked tips. *f f* the woolly ſummits.

Fig. 19. FESTU'CA *(Feſcue.)* *a a* the valves of the empalement. *b b b b b b b* the bloſſoms of the little ſpike terminating in ſharp points. *c* the inner valve of one of the bloſſoms.

Fig. 20. BRO'MUS *(Bromegraſs.)* *a a* the empalement. *b b b* the bloſſoms, the outward valves only of which are viſible, with the awns growing from beneath the point.

Fig. 21. AVE'NA *(Oat.)* *a a* the valves of the empalement. *b b b* the florets, the outer valves of which are furniſhed with a twiſted jointed awn, growing from the back. *d d d* the inner valves. *c c c c c c* the tips.

Fig. 22. ARUN'DO *(Reed.)* *a a* the valves of the empalement. *b b b* the woolly bloſſoms.

Fig. 23. SECA'LE *(Rye.)* *a a* the valves of the empalement. *b b b b* the bloſſoms; the inner valve of which is flat, but the outer concave and furniſhed with an awn. *c c* the ſpike-ſtalk with its little teeth.

Fig. 24.

Fig. 24. TRIT'ICUM *(Wheat.)* *a a* the blunt valves of the empalement, embracing the three bloſſoms *b b b*, the outer valve only of which is ſeen, furniſhed with an awn. *c c* the ſpike-ſtalk.

Fig. 25. HOR'DEUM *(Barley.)* *a a a a a a* the ſix valves of the empalement, two of which belong to each of the bloſſoms *b b b*. *e e e* the long awns of the outer valves of the bloſſoms. *e e* the naked ſpike-ſtalk as it appears after the florets are pulled off.

Fig. 26. EL'YMUS *(Lymegraſs.)* *a a a a a a* the valves of the empalement, two of which belong to each little ſpike *b b b*. *e* the empalement as it appears after the little ſpikes are taken away.

Fig. 27. LOL'IUM *(Darnel.)* *a a a* the empalements of one valve. *b b b* the little ſpikes conſiſting of ſeveral florets. *c* one of the florets opened to ſhew the two valves of the bloſſom.

Fig. 28. CYNOSU'RUS *(Dogstail.)* A the ſpike pointing all one way, compoſed of the florets B, in which *a* repreſents the fence with many clefts; *b b* the valves of the empalement containing ſeveral florets, and *c c* the florets.

Fig. 29. CA'REX *(Segg.)* *a* the tiled cat-kin. *c* the ſcaly empalement of the fertile floret. *d* the honeycup cloven at the top. *b* the ſeed-bud, and *g* the ſhafts taken out of the honeycup: *h h h* the ſummits. *e* the ſcaly empalement of the barren floret, with the three chives *f f f*.

Fig. 30. HOL'CUS *(Softgraſs.)* *a a* the barren florets on ſhort fruit-ſtalks. *b* the fertile floret, furniſhed with chives and pointals.

Fig. 31. ROTTBOL'LIA *(Hardgraſs.)* *a a a a a* joints of the ſpike-ſtalk. *b c b c b c b c* valves of the empalement placed outwards, the edges of one lapping over that of the other. ST.

TRIANDRIA.

III. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

48. VALERIA'NA. - *Bloſs.* with 5 clefts, bellying at the baſe. *Seed* ſingle.

61. CRO'CUS. - - *Bloſs.* 1 petal, but ſo deeply divided as to appear like 6 nearly upright petals. *Summits* coloured; rolled in a ſpiral.

65. I'RIS. - - *Bloſs.* 1 petal; but ſo deeply divided as to appear like 6 alternate reflected petals. *Summits* like petals.

* Flowers *with* valves *like* GRASSES, *and huſky Empalements.*

71. SCHŒ'NUS. - *Bloſs.* o. *Empal.* chaffy; in bundles. *(Scales oppoſite but riſing from the ſame point.* ST.) *Seed* roundiſh.

72. CYPE'RUS. - - *Bloſs.* o. *Empal.* chaffy; pointing from two oppoſite lines. *Seed* naked.

73. SCIR'PUS. - *Bloſs.* o. *Empal.* chaffy; tiled. *Seed* naked.

74. ERIOPH'ORUM. *Bloſs.* o. *Empal.* chaffy; tiled. *Seed* woolly.

75. NAR'DUS. - *Bloſs.* 2 valves. *Empal.* o. *Seed* covered.

† Carex ſylvatica.

† *Dactylis cynosuroides.* Blos. 2 valves. Empal. 2 valves. St.

Order II.

DIGYNIA; II. POINTALS.

* Flowers *scattered*; 1 *in each empalement.*

82. Pan'icum. .... *Empal.* 3 valves; that upon the back the smallest.

84. Alopecu'rus. *Empal.* 2 valves. *Blos.* 1 valve with a simple point; sitting.

83. Phle'um. ..... *Empal.* of 2 valves; lopped; sharp; pointed; sitting.

80. Phal'aris. .... *Empal.* 2 valves. *Valves* keeled; equal; incloſing the bloſſom.

85. Mil'ium. ..... *Empal.* 2 valves. *Valves* diſtended; larger than the blos. nearly equal. (Valves *much* larger than the blos. St.)

86. Agro'stis. .... *Empal.* 2 valves, (*ſometimes only* 1. St.) *Valves* ſharp; ſhorter than the blos. (ſomewhat larger than the blos. St.)

92. Dac'tylis. .... *Empal.* 2 valves. The larger and longer valve compreſſed and keeled.

96. Sti'pa. ..... *Empal.* 2 valves. *Blos.* terminated by an awn which is not jointed.

† Melica nutans. Arundo Epigejos. Arundo Calamagroſtis. Arundo arenaria.

** Flowers *ſcattered*; 2 *in each empalement.*

87. A'ira. ..... *Empal.* 2 valves. *Florets* without the rudiment of a third.

88. Mel'ica. ..... *Empal.* 2 valves. *Florets* with the rudiment of a third between them.

† Holcus. Avena elatior. Avena flaveſcens. Avena fatua. Cynoſurus. Dactylis glomerata. Seſleria.

*** Flowers *ſcattered*; *ſeveral in each empalement.*

90. Bri'za. ..... *Empal.* 2 valves. *Blos.* heart-ſhaped; with diſtended valves.

89. Po'a. ..... *Empal.* 2 valves. *Blos.* egg-ſhaped; with valves ſomewhat ſharp.

(p. 83.) Sesle'ria. *Empal.* 2 valves. *Blos.* oblong; toothed at the end. *Fence* 2 leaves. St.

94. Festu'ca. ..... *Empal.* 2 valves. *Blos.* oblong; with ſharp pointed valves.

95. Bro'mus..... *Empal.* 2 valves. *Blofs.* oblong; its valve with an awn rifing from beneath the point.

97. Ave'na. ..... *Empal.* 2 valves. *Blofs.* oblong; with a twifted awn upon the back.

99. Arun'do. ..... *Empal.* 2 valves. *Blofs.* woolly at the bafe, and without an awn.

† Rottbollia. Aira cærulea, aquatica. Dactylis glomerata.

**** Flowers *on a long toothed feat without fruit-ftalks.*

105. Trit'icum.. *Empal.* containing many florets.

104. Hor'deum. .. *Fence* 6 leaves, containing 3 florets. *Flower* fimple. Linn. — *Fence* 2 leaves. *Flowers* growing 3 together; fimple. St.

(p. 122.) Rottbol'lia. *Empal.* lateral, containing 1 bloffom of 2 valves; folitary. St. *from Sp. plant. and fuppl.* 13.

102. E'lymus..... *Fence* 4 leaves, containing 2 flowers. *Flower* compound. Linn.—*Fence* 2 leaves. *Flowers* 2 or 3 together; compofed of from 2 to many florets. St.

101. Lo'lium. .... *Fence* 1 leaf, containing 1 flower. *Flower* compound.

93. Cynofu'rus. . *Fence* 1 leaf, fixed to the fide. *Flower* compound.

Order III.

TRIGYNIA; III. POINTALS.

107. Mon'tia. .... *Blofs.* 1 petal. *Empal.* 2 leaves. *Caps.* 3 valves. *Seeds* 3.

112. Polycar'pon. *Blofs.* 5 petals. *Cup* 5 leaves. *Caps.* 3 valves.

110. Holos'teum. *Blofs.* 5 petals. *Cup* 5 leaves. *Caps.* opening at the end.

189. Tillæ'a. ..... *Blofs.* 3 petals. *Cup* 3 leaves. *Caps.* 3. *Seeds* feveral.

† Alfine media. Empetrum nigrum.

48. VALERIA'NA. Valerian.

EMPAL. None; or only a *Rim*, which is ſuperior.
BLOSS. *Tube*, bellied on the under ſide, containing honey. *Border* with 5 clefts. *Segments* blunt.
CHIVES. 3, or fewer than 3; awl-ſhaped; upright; as long as the bloſſom. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shaft* thread-ſhaped; as long as the chives. *Summit* thick.
S. VESS. A hard ſubſtance, not opening; deciduous; crowned.
SEEDS. Solitary; oblong.
ESS. CH. *Bloſs.* 1 *petal, ſuperior; bellying at the baſe on one ſide. Seed* 1.

OBS. There is a wonderful diverſity in the parts of the flowers in different ſpecies of Valerian, as well in number as in figure.

VALERIA'NA *rubra*. Flowers with 1 chive, with *red* tails. Leaves ſpear-ſhaped; very entire.—

Riv. 3. 2.—*Dod.* 351. 1. *repr. by Lob. obs.* 184. 2 —*Ger. em.* 678. 1; *cop. by Park.* 123. 11; *and by Ger.* 550. 1.—*H. ox.* 7. 14. 15.—*J. B.* iii. 211. 2.

Red Valerian.

Bloſſoms red; and in gardens there is a variety with *white* bloſſoms. *H. ox. ib. p.* 102.

On old walls and rubbiſh; in Devonſhire and Cornwall common. HUDS. P. May. Aug.

VALERIA'NA *dioi'ca*. Chives and pointals on *ſmall* different plants. Leaves winged, very entire.—

Root-leaves egg-ſhaped. Stem-leaves winged. HUDS.

Plant with chives, but pointals imperfect.

Riv. 2. 3. *V. minor.*—*Fl. dan.* 687. 1.—*Walc.*—*Blackw.* 484. —*Trag.* 62.—*Math.* 41.—*Ger.* 917 3.

Plant with pointals, but only rudiments of chives.

Riv. 2. 2. *flor. exig.*—*Fl. dan.* 687. 2.—*Clus.* ii. 55. 2; *repr. by Dod.* 350. 1.—*Lob. obs.* 411. 3.—*Ger. em.* 1075. 3, *and cop. by Park.* 123. 13, *and J. B.* iii. 211. 1.—*H. ox.* vii. 14. 5. —*Mor. umb.* 10. *d. e.*

Leafy ſhoots ſpring from the crown of the root; the leaves oval or egg-ſhaped. *Leaf-ſtalks* long, 3 cornered. *Leaves* on the ſtem either winged or with winged clefts. I have examined great num-

bers of plants, but never yet found one that had the *Chives* and Pointals perfectly distinct; and they all produce perfect seeds. SCOP.

The diversities in the parts of fructification are considerable; in some flowers there are 3 *Chives* and a very short and minute Pointal; but in others the *Pointal* is entirely wanting. The *Tips* in these are red, and the *Blos.* tinged with red, particularly on the outside. *Dust* yellow.

Flowers upon other roots have either no *Chives*, or else only *rudiments* of chives, and a pointal with the *Summit* cloven into 3 parts. *Blos.* in these plants much smaller than the preceding, and only slightly tinged with red. *Stems* and *Leaves* in both kinds nearly alike, but in the *fertile plants* a tinge of red prevails in them. WITH.

It is sometimes much smaller.

Moist meadows, common. P. May. June.

great VALERIA'NA *officina'lis*. Chives 3 in each flower. Leaves all winged.—

Ludwig. ect. 99.—*Math.* 40.—*Clus.* ii. 55. 1; *repr. by Dod.* 349. 2. *Lob. obs.* 411. 2. *Ger. em.* 1075. 2. *and cop. by Park.* 122.—*Ger.* 917. 2.—*Col. phytob.* 26.—*H. ox.* vii. 14. 2.—*Riv.* 1.—*Fl. dan.* 570; *branch and leaf good.*—*Fuch.* 857; *cop. by Trag.* 61.

Upper *Floral-leaves* spear-shaped. *Leaves*, all of them, a little hairy or woolly at the base. WITH.

Great wild Valerian.

Hedges, woods, and marshes, common. P. June.

narrow leaved 2. Leaves narrower.

Riv. 2. 1.—*Garidel* 96. *at p.* 520.

Dry heaths and high pastures.

It is the latter variety which is in so much repute as a medicine. The root has a strong, and not an agreeable smell; its taste is warm, bitterish, and subacrid; it communicates its properties to wine, water, or spirit; but it is best in substance, and may be taken from half a dram to two drams for a dose. There is no doubt of its possessing antispasmodic virtues in an eminent degree. It is often prescribed with advantage in hysterical cases; and instances are not wanting where it appears to have removed some obstinate epilepsies. In habitual costiveness it is an excellent medicine, and frequently loosens the bowels when other stronger purgatives have been tried in vain.

Cows eat the leaves; Sheep are not fond of them. Cats are delighted with the roots.—Rats are said to be equally fond of them, and that the Rat-catchers employ them to draw the Rats together. ST.

VALE-

VALERIA'NA *locus'ta*. Chives 3 in each flower. *Lettuce* Stem forked. Leaves ſtrap-ſhaped.—

β Leaves entire.

Dod. 647. 1; *repr. by Ger. em.* 310. 1.—*Ger.* 242; *cop. by J. B.* iii. 323. 2.

Bloſs. bluiſh white. *Leaves* and *Stems* fringed at the edges with fine white hairs. WITH.

γ Leaves pointed.

Fl. dan. 738. *H. ox.* vii. 16. 36.

δ Leaves broad.

J. B. iii. 323. 2.

ε Upper leaves ſerrated.

Ger. 242.—*Lob. obs.* 412. 2; *repr. by Ger. em.* 310. 2; *cop. by Park.* 812. 3; *J. B.* iii. 324. 1, *and H. ox.* vii. 16. *n.* 36. *f.* 2. —*Riv.* 6. 2. *Locuſta minima.*

ζ Lower leaves jagged. RAY and LOBEL.

Lob. adv. 319. 1.

η Taller. Leaves entire. Seeds round, ſwoln. MORISON.

H. ox. vii. 16. 37.

Lamb's Lettuce. Corn Sallad.

Common in corn-fields. A. April. May. η June. July.

The young leaves in Spring and Autumn are eaten as ſallad, and are very little inferior to young Lettuce.

Cows, Sheep, and Lambs, eat it.—A Horſe eat it. ST.

61. CRO'CUS. Saffron.

EMPAL. *Sheath* 1 leaf.

BLOSS. *Tube* ſimple, long. *Border* with 6 diviſions; upright. *Segments* equal; oblong egg-ſhaped.

CHIVES. *Threads* 3; awl-ſhaped, ſhorter than the bloſſom. *Tips* arrow-ſhaped.

POINT. *Seed-bud* beneath; roundiſh. *Shaft* thread-ſhaped; as long as the chives. *Summits* 3, rolled in a ſpiral; ſerrated.

S. VESS. *Capſule* roundiſh; with 3 lobes, 3 cells, and 3 valves.

SEEDS. Several, round.

ESS. CH. *Bloſs. with 6 equal diviſions. Summits rolled in ſpirals.*

CRO'CUS *ſati'vus*. Sheath 1 valve, riſing from the *common* root. Tube of the bloſſom very long.—

α *officina'lis*. Leaves narrower, rolled in at the edges. *autumnal*

Math. 69. 70.—*Mill.* 111.—*Trag.* 763.—*Fuchs.* 441, *cop. by J. B.* ii. 637; *with the addition of a fig. of it just appearing above ground.*—*Walc.*—*Sheldr. (Saffron.)*—*Tourn.* 184.—*Ger.* 123. 1. 2.—*Dod.* 213.; *repr. by Lob. obs.* 68.—*Ger.* 151.—*H. ox.* iv. 2. 1.—*Blackw.* 144. 1.—*Park. par.* 167.

Tips bright yellow. *Threads* purple. *Summits* deep orange at the ends. *Seed-bud* cylindrical. WITH.

Crocus officinalis sativus. HUDS.

About Cambridge, and Saffron-Walden, Essex. [About Halifax. Rev. Mr. WOOD. In a meadow near the Copper-mills, Derby. Mr. WHATELY.] P. Aug. Sept.

spring β *vernus.* Leaves broader, with flat edges.

Ger. em. 153. 1.—*Clus.* i. 205. 2; *repr. by Ger. em.* 156. 12. —*Ger.* 125. 1.

OBS. This variety is inserted on the authority of Mr. Hudson, but it is to be regretted that he has not mentioned where he discovered it. Ray, from whom he has extracted the place of growth, takes no notice of it. ST.

Crocus officinalis sylvestris. HUDS.

The Summits of the Pointal of the *officinalis*, carefully collected, and moderately dried, are the Saffron of the shops. That collected in England is preferred to all other. It affords a beautiful colour to water, wine, or spirit, and gives out the whole of its virtues to them. It hath been holden in high repute as a cordial; but modern practice pays no great attention to it, since it has been found to produce no sensible effect, even when given in doses greatly larger than those generally prescribed.

65. I'RIS. Flag.

EMPAL. *Sheaths* 2 valves, ſeparating the flowers; permanent.

BLOSS. With 6 diviſions. *Segments* almoſt diſtinct petals; oblong, blunt. The 3 outer ones reflected; the other 3 upright and ſharper: all connected together by the claws.

CHIVES. *Threads* 3; awl-ſhaped, lying upon the reflected ſegments. *Tips* oblong, ſtraight, depreſſed.

POINT. *Seed-bud* beneath, oblong. *Shaft* ſimple, very ſhort. *Summit* very large, conſiſting of 3 diviſions which reſemble petals; broad, reflected, alternately preſſing down the chives and ſegments; cloven at the end.

S. VESS. *Capſule* oblong, angular; with 3 cells and 3 valves.

SEEDS. Several; large.

ESS. CH. *Bloſs. with 6 diviſions, alternately reflected. Summits reſembling petals.*

I'RIS *pſeud-ac'orus*. Bloſſoms not fringed; the innermoſt ſegments ſmaller than the ſummit. Leaves ſword-ſhaped.— *yellow*

Curt. n. 33. faſc. iii.—Blackw. 261.—Fl. dan. 494.—Dod. 248. 1; repr. by Lob. obs. 31. 1; Ger. em. 50. 2. and cop. by Park. 1219. —H. ox. iv. 6. 11. (Math. 22. Ger. 46. 2; repr. by C. B. th. 633; Trag. 699; Fuchs. 12; cop'. by J. B. ii. 732. 1; the deſcriptions accord, but the habit very different.—Ludw. ect. 101, cannot be the plant, the 3 inner petals being entire.)

Petals, the 3 outer ones toothed on each ſide next to the chives. *Seed-bud* with edges, furrowed. LINN. *Bloſs.* yellow.

Valves of the empalement ſpear-ſhaped. *Petals*, the 3 outer and larger ones ſtreaked with purple lines. *Summits* cut into fringed ſegments at the top. *Tips* compreſſed; purple. *Flowers* 3 together at the top of the ſtem: the 2 outer flowers have each 1 ſheathing valve, and the middle flower 2. *Stem* cylindrical but compreſſed. *Root-leaves* ſheathing each other at the baſe; of a ſilvery white within; ſometimes purpliſh on the outſide. I ſhould be tempted to deſcribe this flower as having 9 *Petals* and 3 *Shafts*; which are connected longitudinally to the 3 innermoſt petals. WITH.

Sometimes it has a pale yellow flower. RAY. Syn. 375.

Flower de luce. Water flag.

Banks of rivers, marſhes, and wet meadows. P. July.

The juice of the freſh root is very acrid, and hath been found to produce plentiful evacuations from the bowels when other powerful means had failed. *Edin. Med. Eſſ. vol.* 5. *art.* 8. It may be given for this purpoſe in doſes of 80 drops, every hour or two; but the degree of its acrimony is ſo uncertain, that it can hardly ever come into general uſe. In ſome caſes it proves diuretic. The freſh roots have been mixed with the food of ſwine bitten by a mad dog, and they eſcaped the diſeaſe, when others bitten by the ſame dog died raving mad. The root loſes moſt of its acrimony by drying.

Goats eat the leaves when freſh; but Cows, Horſes, and Swine refuſe them: Cows will eat them when dry. The roots are uſed in the iſland of Jura to dye black. *Pennant's Tour*, 1772. *p.* 214.

ſtinking

I'RIS *fœtidiſſima*. Bloſſoms ſmooth; the inner ſegments expanding very much. Leaves ſword-ſhaped. Stem with 1 angle.

Dod. 247. 2, *repr. by Lob. obs.* 37. 1, *Ger. em.* 60, *and cop. by Park.* 256. 5.—*C. B. th.* 560.—*J. B.* ii. 731. 2.—*H. ox.* iv. 5. 2.—*In fruit; Fuchs.* 794; *cop. by Math.* 991, *Trag.* 904, *and J. B.* ii. 731. 1.—*Blackw.* 158.—*As growing on the ſea-ſhore, Ger.* 53. 1; *repr. in C. B. th.* 564.

Stem cylindrical, as long as the *leaves*, which cover it, and have a very fœtid ſmell. *Seed-bud* like the preceding. *Bloſs.* of a diſagreeable purpliſh aſh-colour: not ſmelling in the night-time. Claws of the *outer petals* wrinkled and plaited on the under ſurface. *Inner petals* larger than the ſummit, expanding. LINN.

VAR. 2. Leaves ſtriped.

Stinking Gladdon, or Gladwyn.

Near Hornſey, and about Charlton Wood, Kent. HUDS. Near Braintree, Eſſex. [Near Perſhore, Worceſt. NASH. In the Weſt of England not uncommon in lanes. Bath hills; Ditchingham, Norf. Mr. WOODWARD.] P. June. July.

The juice of the root, both of this and the preceding ſpecies, is ſometimes uſed to excite ſneezing; but it is an unſafe practice. Violent convulſions have ſometimes been the conſequence.

Neither Horſes, Sheep, nor Cows, eat it.

bulbous-rooted

I'RIS *Xiphium*. Bloſſoms ſmooth. Flowers in pairs. Leaves awl-ſhaped, channelled, ſhorter than the ſtem.—

H. ox. iv. 7. 10.—*Clus.* i. 212. 2; *repr. in Ger.* 93. 3; *and Ger. em.* 101. 1; *and cop. in J. B.* ii. 705.—*Clus.* i. 214; *repr. in Ger. em.* 102. 6, *and cop. in J. B.* ii. 704. 1.—*Swert.* i. 35. 5.

—*In*

—*In fruit; Clus.* i. 213; *repr. in Ger. em.* 101. 2; *and cop. in Ger.* 93. 4.

Bulbous-rooted flower de luce.

This plant has long been an ornament to our gardens; but Dr. NASH, in his Hiſtory of Worceſterſhire, informs us, that it has lately been diſcovered, by the DUTCHESS DOWAGER OF PORTLAND, by the river-ſide near Fladbury, and in other parts of that county. P.

71. SCHŒ'NUS. Ruſhgraſs. *(Gerard.)*

Pl. II. fig. 2.

EMPAL. *Huſk* 2 valves; large, upright, tapering to a point, permanent: containing ſeveral florets.

BLOSS. *Petals* 6; ſpear-ſhaped, ſharp, approaching, permanent: generally tiled; the outermoſt petals ſhorteſt.*

CHIVES. *Threads* 3, hair-like. *Tips* oblong, upright.

POINT. *Seed-bud* egg-ſhaped, with 3 flatted ſides; blunt. *Shaft* briſtly; as long as the bloſſom. *Summit* with 3 clefts; ſlender.

S. VESS. None; the petals cloſe upon and contain the ſeed until it is ripe.

SEED. Single, ſhining, nearly egg-ſhaped, but with 3 ſides a little flatted; thickeſt towards the top.

ESS. CH. *Huſks chaffy, of* 1 *valve, crowded together. Bloſs.* 0. *Seed* 1, *roundiſh; within the huſks.* LINN. *Bloſs.* 0. *Inner Scales longer than the ſpikeſtalk, the lower ones without chives and pointal.* ST.

OBS. In ſome ſpecies very ſmall briſtles, riſing from the receptacle, ſurround the ſeed. LINN.

Lower ſcales barren; *upper* ones fertile. In the *Scirpus* they are all fertile. This ſeems the proper diſtinction of theſe two genera. SCOP.—But in the *Scirpus acicularis* the outer ſcales are ſometimes barren. ST.

In all the ſpecies which I have examined I have found ſcales of 2 kinds, the *lower or outer ones* hard, leathery, ſtiff, ſhort, empty, or barren, not unfrequently ending in an awn or ſpit-point; and the

* I cannot find theſe 6 petals in any one of the ſpecies. HALL. ST.—As it ſtands at preſent it is rather a deſcription of a Reſtio. ST.—That they are only barren ſcales is evident from their often containing imperfect parts of fructification. SCOP.

the *upper* or *inner* ones longer, membranaceous, ſoft, fertile, awnleſs. Thus the *Schœnus* will differ from the Cyperus and Scirpus as the Uniola from the Briza. Perhaps it may without impropriety be arranged as a diviſion of the Scirpus. ROTTB. ST.?

* *Straw cylindrical.*

long-rooted SCHŒ'NUS *maris'cus.* Straw cylindrical. Leaves beſet with prickles at the edges, and along the back.—

Lob. ic; repr. by Ger. em. 29. 3, *cop. by C. B. th.* 221; *J. B.* ii. 504. 1; *H. ox.* viii. 11. 24; *and Park.* 1264. 1.—*Branch of the panicle, &c. Mich.* 31. *Pſeudo-Cyp.*—*Parts of fructif. Scheuch.* 8. 7—11.

A common empalement, HALL.—compoſed of ſcales without chives and pointal. ST.

Long-rooted baſtard Cyperus.

Marſhes; bogs. [Bogs in Norfolk. Mr. PITCHFORD.] P. July. Aug.

It ſerves for thatching inſtead of ſtraw, and often grows in ſuch quantities in pools as to form floating iſlands. It is hurtful to Cows.

blackheaded SCHŒ'NUS *nil'gricans.* Straw cylindrical, naked. Flowers in an egg-ſhaped head. Fence 2 leaves, one of which is long and awl-ſhaped.—

H. ox. viii. 10. 28.—*Parts of fructif. Scheuch.* 7. 12—14.

General fence 2 valves, notched at the end, with a ſharp point in the middle. *Awn* of the *outer Valve* much longer than the whole head, and dark brown at the end. LINN.

Round black-headed Bogruſh.

Cyperus nigricans, which ſee.

Bogs; marſhes. [Bogs in Norfolk. Mr. PITCHFORD.] P. June.

ferruginous SCHŒ'NUS *ferrugin'eus.* Straw cylindrical, naked. Flowers in a double ſpike. Larger leaf of the fence juſt as long as the ſpike.—

H. ox. viii. 12. 40.

This ſpecies is 6 times ſmaller than the preceding. LINN.

See *S. rufus*, Mr. Smith's remark.

Brown baſtard Cyperus.

Turfy bogs; mountains. P. July.

brown SCHŒ'NUS *fus'cus.* Straw cylindrical, leafy. Little ſpikes almoſt bundled. Leaves thread-ſhaped, channelled.—

H. ox. viii. 11. 40.

Very

Very much reſembling the *Schœn. faſciculatus*, (Linnæus muſt mean the *Sch. albus*, diſtinguiſhed in the *Hort. Cliff.* by the title of *Sch. floſc. faſciculat.*) in height, ſize, appearance, and place of growth, but ſtill a different ſpecies, diſtinguiſhable by its *Little ſpikes* being brown, growing in cluſtered heads, and not white and flat-topped as in the *Sch. albus*. It flowers alſo earlier. LINN.

Panicle ſometimes blackiſh. *Straw* not ſo tall, 3 cornered, but the angles blunt. *Leaves* marked with brown ſpots; 2 or 3 inches long, and ſomewhat more than half a line broad. POLLICH.

Schœnus albus (fuſcus) HUDS. who with Haller regards it only as a variety of the *albus*.

Turfy bogs. P.

** *Straw 3 cornered.*

SCHŒ'NUS *compreſſus*. Straw naked, nearly 3 cornered; flowers in the ſpike pointing two oppoſite ways. Fence 1 leaf.— *compreſſed*

Straw leafy. Little ſpikes containing ſeveral flowers. HUDS.

Leers 1. 1.—*Pollich.* 1. 2.—*Pluk.* 34. 9.—*A ſpike*, *Mich.* 31. *Cyperella. K. Scheuch.* 11. 6.

Straws round, and ſomewhat flattened; below the ſpike 3 ſquare. *Fence* ſcarcely longer than the ſpike. *Little-ſpikes* alternate. *Scales* fixed without any order to the receptacle. *Tips* with ſpit-points at the end. *Summits* 2. *Seed* ſurrounded with 6 rough briſtles. LEERS. ST.—Specimen from Germany. ST.

Scirpus caricis. RETZ. fl. ſcand. n. 56.

Turf bogs. [Near Ditchingham-Bath, Norfolk. Mr. WOODWARD.] P. July.

SCHŒ'NUS *ru'fus*. Straw nearly 3 cornered, leafy. Spike nearly egg-ſhaped. Little ſpikes containing 1 flower. Fence 1 leaf. HUDS.— *brown*

Root perennial, branched, horizontal, creeping. *Straws* many, 6 inches high, upright, a little 3 cornered, undivided; leafy at the baſe. *Root-leaves* ſlender, ſharp, naked, a little channelled, almoſt as long as the ſtraw. *Stem-leaves* 2, on leaf-ſtalks, ſlender, ſharp, about 3 inches long. *Leaf-ſtalk* ſheathing, cylindrical, ſcored, ſmooth. *Spike* terminating, nearly egg-ſhaped. *Little-ſpikes* 5 or 6, ſitting, alternate, tiled, reddiſh brown. *Fence* 1 leaf, ſharp, as long as the ſpike, not quickly decaying. EMPAL. *Huſk* of 1 flower and 2 valves. Valves upright, oblong, concave, permanent. *Bloſs.* Petals 6, ſpear-ſhaped, ſharp, ſkinny; half as long as the empalement. CHIVES. *Threads* 3, hair-like; ſhorter than the bloſſom. *Tips* oblong, upright, yellow. POINT. *Seed-*

bud

bud egg-ſhaped, 3 cornered. *Shaft* very ſhort. *Summits* 3, hairlike. *Seed* ſingle, 3 cornered, tapering to a point. This ſpecies is very nearly allied to the preceding. HUDSON.

Marſhes, in the Iſle of Skye, and near Glaſgow, *Ib.* P. July.

The colour of ruſty iron. *Straw* nearly cylindrical. LIGHTF.

Schœnus compreſſus. Var. LIGHTF.*

In mooriſh places; rare. In the Iſle of Mull. P. July.

white-flowered

SCHŒ'NUS *al'bus.* Straw leafy, nearly 3 cornered. Flowers in bundles. Leaves briſtly.—

Gies. 29.—*Fl. dan.* 320.—*H. ox.* viii. 9. 39.—*Pluk.* 34. 11.—*Branch of the panicle, Scheuch.* 11. 11.—*Mich.* 31. 14. 1.—*(Park. in Huds. is the error of a tranſcriber for Raj. hiſt.)*

Flowers at firſt white, but turning tawny. MICH.

Leaves ſlightly channelled. HUDS.

White flowered Ruſhgraſs.

Marſhes. [A bog near Heydon, Norf. Mr. WOODWARD. Birmingham heath. W.] P. July. Sept.

Goats eat it.

72. CYPE'RUS. Galingale. *(Ger.)*

Pl. II. fig. 3.

EMPAL. *Spike* tiled; flowers pointing from 2 oppoſite lines, ſeparated by egg-ſhaped *Scales* which are keeled on the back, and bent inwards at the edges.

BLOSS. None.

CHIVES. *Threads* 3; very ſhort. *Tips* oblong, furrowed.

POINT. *Seed-bud* very ſmall. *Shaft* thread-ſhaped, very long. *Summits* 3, hairlike.

S. VESS. None.

SEED. Single, 3 cornered, pointed; not hairy.

ESS. CH. *Huſks chaffy, tiled, pointing 2 ways. Bloſs.* 0. *Seed* 1; *naked.*

black headed

CYPE'RUS *ni'gricans.* Straw cylindrical, naked. Spikes in an egg-ſhaped head. Fence of 2 leaves. ST.

Cyperus ſpicis, &c. HALL. *n.* 1347.

Schœnus

* This is the var. of *Schœnus compreſſus* of LIGHTF. t. 24, now allowed to be a diſtinct ſpecies. It has often been deſcribed for the *S ferrugineus*, which I believe has never been found in Britain. Mr. SMITH.

Schœnus nigricans, which ſee.

Fence. The *greater valve* from 1 to 1½ line below the other. *Head* generally compoſed of two cluſters of ſpikes, each with its proper fence. *Fences* and *Scales* of a black purpliſh brown. *Seeds* gloſſy, of a ſnowy or livid whiteneſs, like thoſe of *Lithoſpermum officinale*. SCHEUCH. ST.

Scales pointing from 2 oppoſite lines. *Spikeſtalk* bent alternately backwards and forwards. *Seeds* roundiſh approaching to 3 ſquare, of a pearly luſtre. HALL. ST.

Spikes ſpear-ſhaped, flattened, on very ſhort fruit-ſtalks. *Scales* ſpear-ſhaped, from 5 to 6. *Seed* naked. POLLICH. ST.

Each *Seed* lies within the correſponding curvature of the ſpike-ſtalk, and is incloſed by the embracing ſides of the ſcale above it, as well as by its own; marked lengthways by 3 prominent ribs.—Every part of the plant rigid.—To arrange amongſt the Cyperuſes after the *monoſtachyos*, to which it has the neareſt affinity, and which it ſeems to connect with the umbelliferous ſpecies. ST.

CYPE'RUS *longus*. Straws leafy, 3 cornered. Flowers in a trebly compound leafy bundle. Fruit-ſtalks naked. Spikes alternate.— *engliſh*

H. ox. viii. 11. 13.—*Fuchs.* 453. *cop. by Trag.* 915; *(but improperly referred by C. B. to his C. rot. vulg.) and J. B.* ii. 501. 1. —*Math.* 26. *left half of the fig. cop. in Ger.* 28. 1.—*Dod.* 338. 2. *repr. by Lob. obs.* 40. 1. *Ger. em.* 30. 1. *and cop. by Park.* 146. 3. *(deſcr. n.* 4.)—*C. B. th.* 216.—*Blackw.* 316.—*Branch of panicle, Scheuch.* 8. 12.—*(Pluk.* 192. 1, *and Mont.* 1. 2, *quoted by the Germ. ſynonyms, appear to be other plants.)*

Root long, odoriferous.

Fruit-ſtalks ſometimes to the amount of 12 or 13, forming a ſort of rundle, the outer ſpokes of which are gradually ſhorter and ſhorter. *Little ſpikes* ſlender, tapering to a point, cheſnut-coloured. SCOP.

Sweet Cyperus. Engliſh Galingale.

Fens and marſhes. [Not found on St. Faith's bogs, as mentioned by Mr. Hudſon, Ed. 2.—A ſpecimen of it was by miſtake ſent to Mr. Hudſon with ſome of St. Faith's plants. Mr. SMITH.]

P. July.

The root is agreeably aromatic to the ſmell, and warm and bitter to the taſte. The modern practice diſregards it; but perhaps it is not inferior to ſome of the more coſtly medicines brought from abroad.

73. SCIR'PUS. Club-graſs.

Pl. II. fig. 4.

EMPAL. *Spike* tiled; the flowers growing equally from every ſide, and ſeparated by egg-ſhaped *ſcales* bent inwards at the edges.

BLOSS. None.

CHIVES. *Threads* 3; which continue growing longer. *Tips* oblong.

POINT. *Seed-bud* very ſmall. *Shaft* thread-ſhaped, long. *Summits* 3, hairlike.

S. VESS. None.

SEED. Single, 3 cornered, pointed; furniſhed with ſoft hairs, which are ſhorter than the empalement.

ESS. CH. *Huſks chaffy; tiled on every ſide. Bloſs* 0. *Seed* 1, *beardleſs*. LINN.

Bloſs. 0. *Inner ſcales ſhorter than the ſpikeſtalk, the lower ones generally producing chives and pointal.* ST.

OBS. Soft hairs in ſome ſpecies grow to the point, in others to the baſe of the ſeed.

* *Spike ſingle.*

common SCIR'PUS *palus'tris*. Straw cylindrical. Spike nearly egg-ſhaped, terminating.—

tall. *Fl. dan.* 273.—*Lob. obs.* 44. 1; *repr. in Ger. em.* 1631. 7, *and cop. by Park.* 1196. 1.—*H. ox.* viii. 10. 32.—*C. B.* 186.—*J. B.* ii. 523. 3.—*Spike and fructif. Leers* 1. 3. *(the beſt.)*

VAR. β *Fl. dan.* 167, *in the opinion of Mull. fl. fried. confirmed by an examination.*—*H. ox.* viii. 10. *row* 3. *fig. between* 33 *and* 34.—*Park.* 1196. 2.—*Spike Scheuch.* 7. 17.

Straw not perfectly cylindrical. *Leaves* compreſſed; of a reddiſh brown colour at the baſe. *Hairs*, 3 or 4, at the baſe of each ſeed-bud. SCOP.

Club-ruſh. Aglet-headed Ruſh.

Banks of rivers, ponds, and ditches; frequent. [β. Near Stafford, and Severn Stoke, Worceſterſh. ST.] P. July.

Swine devour the roots greedily when freſh, but will not touch them when dry. Goats, Horſes, and Hogs eat it. Cows and Sheep refuſe it.

SCIR'-

SCIR'PUS *cæſpito'ſus*. Straw ſcored, naked. Spike terminating, with 2 valves as long as the empalement. Roots ſeparated by ſcales.— *dwarf*

Straw covered at the baſe with tiled ſheaths, the uppermoſt terminating in ſhort leaves. ST.

Scheuch. 7. 18.—*J. B.* ii. 523. 2.—*C. B.* 79.—*(Fl. dan.* 167. *referred to this ſpecies by every author except Muller is a var. of the S. paluſtris; and H. ox.* viii. 10. *row* 3. 35. *cannot be the plant, ſince the ſpike is* 4 *times as long as the empalement.—Pluk.* 40. 6. *appears to be a different plant, the ſame with H. ox.* viii. 10. *row* 3. 34; *and in Barr.* 256. 1. *the inner valve of the empalement is nearly twice as long as the outer.)*

Straws from 2 to 6 inches high. *Spike*, the 2 *outer ſcales* as long as the ſpike, and performing the office of a fence, but producing ſeed. *Seeds* with hairs from the baſe. ST.

Dwarf Clubruſh. Deers hair.

Turf bogs and dry heaths. P. July.

Goats, Sheep, and Cattle eat it.

SCIR'PUS *pauciflorus*. Straw ſcored, naked. Spike terminating; with few flowers; longer than the valves of the empalement. LIGHTF. *chocolate-headed*

Scheuch. 7. 19.—*Ger. em.* 21. 3. *cop. by Park.* 1270. 7.—*J. B.* ii. 509. 1? *(Fl. dan.* 167, *according to Oed. and which Mr. Lightfoot refers to, though doubtfully, is a var. of the S. paluſtris.)*

Root-leaves as high, or higher than the ſtalks, which they reſemble. *Stalks* and *Leaves* ſheathed. *Sheaths lopped*, and not ending in a projecting point as in the *S. cæſpitoſus*. *Empal.* valves 2, oval, not ending in a rigid point. *(non mucronatæ.* HALL.) LIGHTF.—but *Scheuch.* deſcribes them as ending in a ſharp point. ST.

It ſeems to be a var. of the *S. cæſpitoſus*. HUDS.

Scirpus Bœothryon, inſerted by Ehrhart in LINN. the SON's Suppl. 103?—no figure referred to, but the character ſeems to have been formed from the deſcriptions of Haller and Lightfoot. ST.

Highland Mountains. [Ellingham Fens, Norf. Mr. WOODWARD.] P. Aug.

SCIR'PUS *acicula'ris*. Straw cylindrical, naked, briſtle-ſhaped. Spike egg-ſhaped, conſiſting of 2 valves. Seeds naked.— *ſlender*

Straw 4 cornered. HUDS.

Fl. dan. 287.—*H. ox.* viii. 10. *row* 3. 37.—*Pluk.* 40. 7. *(Fl. dan.* 167, *another plant, as Oed. acknowledges: ſee Faſc.* v. *p.* 8. *t.* 287.)

Leaves

Leaves crooked, ſtiff, cylindrical.

Scales 2 on the outſide of the ſpike, egg-ſhaped, ſomewhat pointed, as long or only half as long as the ſpike. *Scales of the Flowers*, ſhape as the former. POLLICH. In one ſpecimen the 2 *outer ſcales* containing no chives or pointal, in 4 others producing ſeed as the reſt, as in the fig. of the Fl. dan. whence Mr. Hudſon has very properly omitted that circumſtance in his ſpecific character. *Straw* from 1 to 6 inches high. Forms a fine cloſe green turf. ST.

Leaſt upright Club-ruſh.

Marſhes and bogs. [Malvern Chace, Worc. ST.] P. Aug.

floating SCIR'PUS *fluitans*. Straws cylindrical, naked, alternate. Stem leafy and limber.—

H. ox. viii. 10. 31.—*Scheuch.* 7. 20. (*Pluk.* 35. 1. *Spikes ill done.*)

Floating Club-ruſh. Ponds; Ditches. P. July. Aug.

** *Straw cylindrical; with ſeveral ſpikes.*

Bull-ruſh SCIR'PUS *lacuſtris*. Straw cylindrical, naked. Spikes ſeveral, egg-ſhaped, on fruit-ſtalks, terminating. LINN.—Empalements fringed, cloven into 3 ſegments, the middle one awl-ſhaped. ST.

tall α. Fence ſomewhat membranaceous, ſhorter than the panicle. Spikes rather oblong. HUDS.

H. ox. viii. 10. 1.—*Ger.* 31. 3; *repr. in C. B.* 178.—*J. B.* ii. 522. 2. *Dod* 605. 1; *repr. by Ger. em.* 35. 3, *and cop. by Park.* 1191. 1.—*Leaves*, *Trag.* 674. 1.

Empalements brown, or browniſh cheſnut. SCHEUCH. ST.

dwarf β. Fence nearly the length of the panicle. Spikes egg-ſhaped. HUDS.

Ger. 31. 4, *repr. in C. B.* 181.

Spikes dark cheſnut, or dark brown with a tinge of red. SCHEUCH.

Empalements dark browniſh purple above; below, whitiſh with purple ſpots. ST.

keeled γ. One ſide of the ſtraw flattiſh. HUDS.

H. ox. viii. 10. 2.

Scales of the ſpikes cloven, and a little pointed ſubſtance at the bottom of the cleft. *Seed-bud* with 5 or 6 hairs at the baſe. *Seeds* brown. SCOP.

Spikes cheſnut-colour. W.

Empal. fringed with ſhort curled hairs. ST.

Bull-ruſh. Rivers; pools; fens. P. July. Aug.

When fodder is exhauſted, Cattle will live upon it. Cottages are ſometimes thatched, and pack-ſaddles ſtuffed with it. Bottoms of chairs are very commonly made of this ruſh. If cut at one year old

old it makes the fine bottoms. Coarſe bottoms are made of it at two years old; and thoſe that are ſtill older, mixed with the leaves of the Iris pſeud-acorus, make the coarſeſt bottoms of all. Mats are likewiſe made, either of the Scirp. lacuſtris alone, or mixed with the aforeſaid leaves.—Goats and Swine eat it. Cows and Sheep refuſe it.

SCIR'PUS *Holoſchœ'nus*. Straw cylindrical, naked. Spikes nearly globular, congregated, ſtanding on fruit-ſtalks; with a fence of 2, unequal, ſharp, pointed leaves.— *round-headed*

H. ox. viii. 10. 17.—*Mich.* 31. *(Scirpoides.)*—*Scheuch.* 8. 2—5.—*Pluk.* 40. 4.—*C. B.* 174.—*Park.* 1194. 4.—*(Fl. dan.* 454, *undoubtedly another plant, though Oeder's error has been copied by every ſubſequent author.)*

Sheaths of the leaves jagged and fringed. 1 or 2 of the heads of flowers without fruit-ſtalks. *Scales* roundiſh, but terminated by a whitiſh ſlender point. SCOP.

Sea coaſt. P. July.

SCIR'PUS *roma'nus*. Straw cylindrical, naked. Head lateral, compact. Floral leaf bent back.— *ſingle-headed*

Jacq. fl. 448.—*Barr.* 255. 3.—*Head; Scheuch.* 8. 6.—*Pluk.* 40. 5.

Straws the thickneſs of a thread; thoſe of the *S. Holoſchœnus* as thick as the *S. lacuſtris*, and ſharp pointed. LINN.

Frequently many-headed. *Scales* egg-ſhaped, ſharp, concave. *Tips* yellow. *Summits* white. JACQ.

Moiſt meadows. Marſhy places, near Throgmorton, Worceſterſhire. HUDS. and NASH. P. July.

SCIR'PUS *ſeta'ceus*. Straw naked, briſtle-ſhaped. Spike terminating, ſitting. LINN.—Seeds naked. ST. *leaſt*

Fl. dan. 311.—*Leers.* 1. 6.—*Rottb.* 15. 5. *and* 6.—*H. ox.* viii. 10. 23.—*Park.* 1270. 10 *and* 9.—*Barr.* 118. 2, *wretched, if really the plant. (Rottb.* 15. 4, *which he refers to the S. ſetaceus, Mant. came from the Cape.)*

Leaves like briſtles. *Straws* naked, numerous; as thick as the leaves, but twice as long. *Spike* 1, rarely 2, terminating, egg-ſhaped. Lowermoſt Scale awl-ſhaped, pale, as long as the ſpike. LINN.

The *Floral-leaf*, called by Linnæus the lowermoſt *Scale*, is apparently an extenſion of the Straw, ſometimes 2 lines in length, *(as Rottb.* 15. 5. *Scirp. ſetac.* β; which though gathered near Paris he fancies to be the *Cyperus minimus,)* but frequently half an inch or more, as *Fl. dan. Leers, H. ox. and Rottb.* 15. 6. *Scirp. ſetac.* γ. *Spikes* 2, 3, or 4; or, as on ſome of the ſhorter ſtraws, only 1.

Scheuch. with whoſe remarks, my ſpecimens, all from one root, perfectly accord; except that I find no ſtraw with more than 3 ſpikes. St.

The number of ſpikes varies from 1 to 4. Huds.

Spikes greeniſh brown, tinged with roſe-colour. W.

Leaſt Ruſh. Small Plymouth Ruſh-graſs.

Wet ſandy ground. A. July. Aug.

*** *Straw* 3 *cornered. Panicle naked.*

3 ſquare SCIR'PUS *tri'queter.* Straw 3 cornered, naked. Spikes, ſome nearly ſitting, others on fruit-ſtalks; as long as the ſharp-point.—

Pluk. 40. 2.

Sides of the ſtraw flat, not hollowed out. Linn.

S. mucronatus triqueter. Huds. P.

Banks of the Thames above and below London.

pointed SCIR'PUS *mucrona'tus.* Straw 3 cornered, taper, naked. Spikes lateral, ſitting; crowded together.—

H. ox. viii. 10. 20.—*Pluk.* 40. 1. *and* 3.—*C. B. pr.* 22. 1; *th.* 175.—*Head, Scheuch.* 9. 4.

Straws 3 cornered, triangular, keeled 3 ways; angles compreſſed. *Sharp-points* much longer than the flowers; bent ſideways. Linn.

Empalements ſharp-pointed. 3 awn-like threads at the baſe of the ſeeds. Scheuch.

Pollich's ſhould ſeem to be a different plant, for he deſcribes the empalement as blunt. St.

Spikes ruſty-iron coloured, with ſcales like thoſe of the *S. lacuſtris.* Scop.

Sea-ſhore; banks of large rivers. P. July. Aug.

**** *Straw* 3 *cornered, panicle leafy.*

ſalt-marſh SCIR'PUS *marit'imus.* Straw 3 cornered. Panicle cloſe, and leafy. Scales of the little ſpikes cloven into 3 ſegments; the middle ſegment awl-ſhaped.—

round-rooted *α and γ? C. B. pr.* 24. *repr. in th.* 215. *and cop. in Park.* 1263. 4. *and H. ox.* viii. 11. 9.—*Ger. em.* 31. 5. *ſeems to be the ſame.—Panicle, Scheuch.* 9. 9 *and* 10. *probably the ſame. Specimen gathered in England, place unknown.*

ſpreading ♪ *Ger.* 20. 7. *repr. in C. B. th.* 86.—*Ger em.* 22. 7. *cop. by Park.* 1266. 6. *right-hand plant, H. ox.* viii. 11. 25. *and in J. B.* ii. 495. 1. *left-hand plant.—Dod.* 338. 1. *repr. in Lob. obs.* 39. 2. *confirmed by Mich. and not Cyper-eſculent.—Branch of the panicle, Scheuch.* 9. 7 *and* 8. *(C. B.* 214.—*Lob. obs.* 40. 3. *cop. in Park.*

Park. 1264. 3. *and the H. ox.* viii. 11. 8.—*J. B.* ii. 503. 3.—*as alſo Lob. obs.* 40. 2. *cop. in J. B.* ii. 503. 1. *ſeem to be Carexes.)*

1 *Ger. em.* 22. 7. *cop. in Park.* 1266. 6. *left-hand plant, and J. B.* ii. 495. 1. *right-hand plant. Specimen from the ſaltmarſh at Shirley Wich, Staffordſh.* ST. *tufted*

Leaves ſtiff, and ſharp at the edges. Little ſpikes much longer. LINN.

Panicle ſometimes branched, ſometimes ſimple. HUDS. as in the fig. on the left hand in Park. and that on the right in J. B. ST.

Spikes oblong; the colour of ruſty iron. *Seeds* the ſame colour; ſhining, egg-ſhaped but compreſſed, and tapering to a point: 2 or 3 whitiſh, lopped, chaffy ſubſtances, ſhorter than the *Shaft*, riſe from the baſe of the Seed-bud. *Shaft* browniſh red. *Summits* unequal. In ſome ſpecimens the *Spikes* are ſitting, and the *Stem-leaves* ſhorter than the Straw; in others they are longer: and in ſome the Spikes are ſome ſitting, ſome on fruit-ſtalks. SCOP.

Sea-coaſt. Salt Marſhes near Yarmouth. Mr. WOODWARD. P. Aug.

Cows eat it. The roots, dried and ground to powder, have been uſed inſtead of flour in times of ſcarcity.

SCIR'PUS *ſylvat'icus*. Straw 3 cornered, leafy. Rundle leafy. Fruit-ſtalks naked, trebly compound. Spikes crowded.—LINN. Empalements entire. ST. *wood*

C. B. th. 90.—*H. ox.* viii. 11. 15.—*J. B.* ii. 504. 2.—*Fl. dan.* 307.—*Lob. adv.* 38. 1; *repr. by Ger. em.* 30. 5, *and cop. by Park.* 1171. 2.—*Branch of the rundle, Leers* 1. 4. *Fl. dan.* 307.

Leaves flat. *Tips* yellow. *Seed-bud* with 3 or 4 hairs at the baſe. SCOP.

Leaves very broad, keeled; with a blunt, coloured, projection at the end: the edges and keel rough with ſtrong hairs. *Seeds* girt with 4 or 6 ſhort hairs riſing from the baſe of the ſeeds. LEERS. ST.

Millet Cyperus graſs.

Wet ſhady places. [Ditchingham, Norf. Mr. STONE.] P. July.

Cows, Sheep, Horſes, and Goats eat it. Swine refuſe it.

74. ERIOPH'ORUM. Cottongraſs.

Pl. II. fig. 5.

EMPAL. *Spike* tiled; the flowers growing equally from every ſide, and ſeparated by oblong-eggſhaped membranaceous, flexible, tapering *Scales*, which are flat but turned in at the edges.

BLOSS. None.

CHIVES. *Threads* 3, hair-like. *Tips* upright, oblong.

POINT. *Seed-bud* very ſmall. *Shaft* thread-ſhaped, as long as the ſcale of the empalement. *Summits* 3, longer than the *ſhaft*, reflected.

S. VESS. None.

SEED. 3 cornered, tapering to a point; furniſhed with ſoft hairs, which are longer than the ſpike.

ESS. CHAR. *Huſks chaffy; tiled on every ſide. Bloſs.* 0. *Seed* 1, *ſurrounded with very long wool.*

ſingle-headed ERIOPH'ORUM *va'ginatum*. Straw cylindrical; ſheathed. Spike ſkinny.

In fruit. Curt. iv. 37.—*Fl. dan.* 236.—*Scheuch. prod. and app.* 7. 1.—*J. B.* ii. 514. 2.—*C. B. pr.* 23; *repr. in th.* 188, *and cop. by Park.* 1272. 5.—*H. ox.* viii. 9. *row* 3. 6. *Gr. junceum. ib.* 6. *Gr. juncoid.*—*Park.* 1272. 2.—*ib.* 1.—*In bloſſom. Curt. ib.*—*Park.* 1189. 1.—*Spike and parts of fructif. Sceuch.* 7. 1—3. *Mont. I. K.*

Root-leaves imperfectly 3 cornered, ſharp, with two of the ſides ſcored. *Stem-leaves* cylindrical. *Sheaths* incloſing the ſtraw; the uppermoſt purple at the baſe. *Straw* twice as long as the leaves; ſcored, cylindrical, but flat on one ſide. *Spike* egg-ſhaped, tiled. *Scales* ſkinny; brown: the lower ones barren; the upper ones bearing woolly ſeeds. LINN.

Spike ſingle. *Scales* brown. *Straw* bluntly 3 cornered. *Sheath* from 1 to 2 inches long, riſing from the joint of the ſtraw; purple at the lower, ſkinny and ſpear-ſhaped at the upper part. Another *Sheath*, lower down, riſes from the root. *Root-leaves* 3 cornered, convex on one ſide, flat on two ſides. WITH.

Hare's-tail Ruſh. Moſs-crops.

Bogs. [Near Lynn. Mr. PITCHFORD. Very frequent in all the northern counties. Mr. WOODWARD. Birmingham heath, in the marſhy valley croſſed by the foot-road to Winſon-green. W.]

P. Febr. April.

ERI-

ERIOPH'ORUM *polyſta'chion*. Straw cylindrical. *many-headed* Leaves flat. Spikes on fruit-ſtalks.—

Curt. iv. 37.—*Vaill.* 16. 1 *and* 2.—*Leers* 1. 5.—*H. ox.* viii. 9. *row* 3. 1. *Ger.* 27. 1. *repr. in C. B. th.* 61.—*Trag.* 683.—*Garid.* 44.—*Dod.* 562. 2; *repr. in Ger. em.* 29**—*Barr.* 12.—*J. B.* ii. 514. 1.—*Parts of fructif. Mont. (Linagroſt.) K. L. I.*

Spikes pendant; generally 3 upon each ſtraw, which riſes out of a ſheath, formed by 3 browniſh leaves, the outermoſt of which is much longer than the reſt and green at the end. *Leaves* ſheathing the ſtem; ſemi-cylindrical, and hollow at the lower part, but ſolid and 3 cornered towards the top; tapering gradually to a point. W.

Cottongraſs. Moorgraſs. Moſs-crops.

Marſhes and bogs, not uncommon. [Birming. heath, Aquilate Meer, near Newport, Shrop. covering ſeveral acres. W.] P. June.

This plant is uſeful in the Iſle of Skie, to ſupport Cattle in the earlier part of the Spring, before the other graſſes are ſufficiently grown. *Pennant's Tour*, 1774. *p.* 308. Poor people ſtuff their pillows with the down, and make wicks of candles with it, but it becomes brittle when quite dry.

OBS. The laſt 4 genera are nearly allied to the GRASSES, and a ſuperficial obſerver would be tempted to conſider them as ſuch; but an attentive peruſal of the generic characters will afford ſufficient diſtinctions. *(See the Plate of Graſſes.)* *

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* *Different View of the laſt Four Genera.*

ERIOPHORUM. Seeds with hairs longer than the empalement. HALL.

Eriophorum. Linn.

SCIRPUS. Seeds with hairs ſhorter than the empalement. HALL.

* 1. Scales tiled.—as in the Eriophorum.

S. paluſtris. Empal. entire. Spike ſingle, terminating. Straw cylindrical.

S. mucronatus. Empal. ſharp-pointed. Spikes ſitting, lateral. Straw 3 cornered.

S. ſylvaticus. Empal. entire. Spikes in panicles.

S. lacuſtris. Empal. cloven into 3 at the end, fringed. Spikes in panicles. Straw cylindrical.

S. maritimus. Empal. cloven into 3 at the end. Spikes in panicles. Straw 3 ſquare.

** 2. Scales bundled. Spikeſtalk ſhorter than the ſcales.

Schœnus compreſſus. Spike compound. Little ſpikes pointing 2 ways.

Schœnus albus. Little ſpikes bundled. Outer ſcales ſhorter than the inner.

S. pauciflorus. LIGHTF. Outer ſcales longer than the inner, but ſhorter than the ſpike. Root-leaves as long as the ſtraw.

S. cæſpitoſus. Outer ſcales as long as the ſpike. Root-leaves ſhorter than the ſtraw. ST.

MARISCUS. Seeds naked. HALL.

Schœnus mariſcus, Scirpus acicularis, ſetaceus.

75. NAR'DUS. Matgrass

Pl. II. fig. 6.

EMPAL. None.

BLOSS. 2 valves; *outer Valve* long, betwixt strap and spear-shaped; pointed at the end, and including the *lesser Valve*, which is strap-shaped and sharp pointed.

CHIVES. *Threads* 3, hair-like; shorter than the blossom. *Tips* oblong.

POINT. *Seed-bud* oblong. *Shaft* single, thread-shaped, long, downy. *Summit* simple.

S. VESS. The blossom adheres to the seed, without opening.

SEED. Single, included in the blossom; long and narrow, tapering to a point at each end, the upper part narrowest.

ESS. CHAR. *Cup* 0. *Blos.* 2 *valves.*

heath NAR'DUS *stric'ta.* Spike slender, straight; the florets pointing in one direction.—

Schreb. 7.—*C. B. th.* 70.—*H. ox.* viii. 7. 8.—*J. B.* ii. 513. 2.—*Lob. ic.* 90. 1; *repr. in Ger. em.* 1631. 3, *and cop. by Park.* 1199. 5—6—7.—*Spike, &c. Leers* 1. 7.—*Scheuch.* 2. 10.—*Mont.* 31.

Spikes yellowish white, or violet colour. *Florets* rising only from one side. WITH.

Straw with 1 joint near the base, and 1 short bristly leaf. *Root-leaves* numerous, long, thread-shaped, a little rough. *Spike-stalk* convex on one side, hollow on the other, with alternate teeth at the edges, and rough, for the insertion of the florets. LEERS.

Small Matweed. Heath Matweed.

Heaths and marshes. [Heaths in Norf. frequent. Mr. WOODWARD. Malvern Chace, Worcest. Mr. BALLARD. Birmingham heath, ST. Lilleshall pool dam, Shropsh. W.] P. June. Aug.

This grass is stiff and hard to the touch, but being generally short, it eludes the stroke of the scythe, and takes off its edge, which makes it disliked by Mowers.

Goats and Horses eat it. Cows and Sheep are not fond of it. Crows stock it up, for the sake of the larva of insects which they find at the root.

Order

Order II.

DIGYNIA. II. POINTALS.

82. PAN'ICUM. Panick.

Pl. II. fig. 7.

EMPAL. *Huſk* with 3 valves*, containing 1 floret. *Valves* nearly egg-ſhaped; the *ſmalleſt* ſtanding behind the other two.

BLOSS. 2 valves. *Valves* nearly egg-ſhaped, the *ſmaller* valve the flatteſt.

CHIVES. *Threads* 3; hair-like, ſhort. *Tips* oblong.

POINT. *Seed-bud* roundiſh. *Shafts* 2; hair-like. *Summits* downy.

S. VESS. The bloſſom adheres to the ſeed without opening.

SEED. Single, incloſed in the bloſſom; roundiſh, but a little flatted on one ſide.

ESS. CHAR. *Bloſs.* 3 *valves*; 1 *very ſmall.*

PAN'ICUM *verticilla'tum.* Spike whorled. Little bunches in fours. Little fences of 2 briſtles, with 1 flower. Straws ſpreading.— *rough*

Curt. iv. 44.—*H. ox.* viii. 4. 11. *Ger.* 14. *repr. in C. B. th.* 139; *cop. by Park.* 1177. 2, *and J. B.* ii. 469. 1.—*Ger. em.* 15. 1. *(J. B.* ii. 491. 2. *is a different ſpecies.)*

Greatly reſembling the *P. viride*, but the *bunches* of the *Spike* longer, 3 or 4 together, pointing downwards on one ſide. *Flowers* green. *Pointals* purple. 1 or 2 rough *Briſtles* to each flower, and longer than the flower. *Little fruit-ſtalks*, after the falling off of the

* *Valves* generally 4. The *1ſt* or *outermoſt*; the *2nd* oppoſite to the outermoſt, and covering the outer valve of the bloſſom; the *3rd* oppoſite and ſimilar to the 2d; the *4th* between the 3d and the inner valve of the bloſſom, flat, membranaceous, and generally ſmaller than the 1ſt.—Mr. Curtis has ſeen and figured it in the P. Cruſgalli, f. 5. 6.; but calls it a membrane between the empal. and bloſs. It exiſts in the *P. glaucum*, *viride*, *miliaceum*, *capillare*, *patens*, and even in the *ſanguinale*, where, ſtill obſerving its proportion to the outer valve, it is with difficulty diſcovered. In the *patens*, with the aſſiſtance of the 3rd valve, it performs the office of a bloſſom incloſing 3 naked chives. In the *P. Dactylon* there are only 2. ST.

flowers, terminated by a lopped, hollow, white cup. *Spike-ſtalk* cloven, with 3 or 4 corners. Straws ſmooth; ſpreading; 2 feet high. *Leaves* naked. LINN.

Kneed-graſs.

Cornfields between Putney and Roughampton. RAY. Batterſea fields. CURT. A. June. July.

green

PAN'ICUM *viride*. Spike cylindrical. Partial fence including 2 florets; hairy and bundled. Seeds ſtringy.—*Curt.* iv. 44.—*Ger. em.* 17. 3.—*Park.* 1154. 2 *and* 3.—*(Fl. dan.* 852, *called P. cruſgalli;* Mr. WOODWARD.) *Ger.* 20. 8; *repr. in C. B. th.* 138, *and cop in H. ox.* viii. 2. 10.—*J. B.* ii. 431. 1.—*Spike; Leers* 2. 2.—*Fructif. Scheuch.* 2. 2.

Straw from 12 to 18 inches high; leafy; with 3 joints; ſcored and rough towards the top. *Leaves* rather broad, rough on the upper ſide. *Spike* betwixt cylindrical and egg-ſhaped, unequal in thickneſs; green, purpliſh on one ſide. *Fruit-ſtalks* very ſhort. *Briſtles* white, or purpliſh; ſeveral ſurrounding each floret, and 4 times as long as the floret. The third petal of the bloſs. always wanting. LEERS.—not always preſent. SCOP.

4th valve as ſhort again as the bloſſom, while that of the *P. glaucum* is nearly as long as the bloſſom. Bloſſom oval, roughiſh, but even; that of the *glaucum* roundiſh-eggſhaped, rough, and undulated. ST.

Sandy fields. [Corn fields, Ditchingham, Norf. Mr. WOODWARD. Many places about Norwich. Mr. SMITH.] A. July.

looſe

PAN'ICUM *Cruſgal'li*. Spikes alternate and in pairs. Little ſpikes ſub-divided. Huſks awned, and rough with ſtrong hairs. Spike-ſtalk with 5 angles.—

ſmooth

α Awns not above once and a half as long as the empalement. LINN. 10 awns. CURT.

Curt. iv. 41.—*Math.* 407.—*H. ox.* viii. 4. *row* 1. 15.—*Dod.* 559. 2, *repr. by Lob. obs.* 25. 2, *and Ger. em.* 85. 4; *and cop. by Park.* 1154. 1.—*Ger.* 79. 5, *repr. in C. B. th.* 136.—*C. B. th.* 142. *(Dod.* 561. 3. *ſeems a different plant.)*

bearded

β Awns 10 times as long as the empalement.

Ger. 15. 1. *repr. in C. B. th.* 137.—*J. B.* ii. 443. 2.—*Ger. em.* 16. 1, *cop. by Park.* 1154. 4.—*Panicle, &c. Leers* 2. 3.—*Fructif. Scheuch.* 2. 2. F. *(Fl. dan.* 852. *is the P. viride.* Mr. WOODW.)

Wet corn-fields; rare. About Batterſea. Near Martha's Chapel, by Guildford. HUDS. Between Deptford and Greenwich; near Petersfield, by the rivulet, Hants. RAY. A. Aug.

PAN'ICUM *ſanguina'le.* Spikes fingered; knotty on the inſide the baſe. Flowers in pairs; without awns. Sheath of the leaves dotted.— *cock's-foot*

Curt. iv. 41.—*Schreb.* 16.—*H. ox.* viii. 3. *row* 1. 2.—*Buxb.* v. 65.—*Clus.* ii. 217. 2; *repr. in Lob. obs.* 13. 1; *and Ger. em.* 27. 2; *and cop. by Park.* 1178. 1.—*Ger.* 25. 2. *repr. in C. B. th.* 114.—*J. B.* ii. 444. 1.—*(Fl. dan.* 388? *Flowers tiled, and leſſer ſpikeſtalks bare of flowers a conſiderable way up. Separate ſpikeſtalks well done.)*—*Spikes, &c. Leers* 2. 6. *not a good reſemblance though the only fig. where the knots at the baſe of the ſpikes are repreſented.*—*Scheuch.* 2. 11. *G. H.*—*(Math.* 1000 *ſeems to be the var. noticed by Scheuch. p.* 102, 103.)

Flowers ſlightly hairy. HALL.

Empal. outer valve very minute. SCHREB. ST.; very often wanting.

Straw leafy, ſmooth; with 3 joints, the 2 lower ones procumbent, the upper one very long, riſing obliquely. *Leaves* rather broad, ſhort, ſmooth. *Sheaths* of a blood red, ſet with very minute riſing dots, and briſtly. *Valves* of the empal. pubeſcent. *Seeds* reddiſh, ſhining. LEERS.

Sheaths of the leaves bare, as in the fig of Schreb. and Fl. dan. beſet with ſoft hairs, Scheuch.; or very hairy, as in Curt. Buxb. Clus. &c. ſprinkled with a number of minute round brown tubercles, obvious to the naked eye; but no knots at the inner baſe of the ſpikes. (Specimens from Germany.) Both circumſtances wanting in the plant figured by Curtis. ST.

Spike-ſtalks flattened, as if bordered. *Flowers* placed in alternate pairs. SCHEUCH. ST.

Straws leafy. *Leaf-ſheaths* doted. *Spikes* on very ſhort fruit-ſtalks. *Spikeſtalks* ſomewhat zigzag. *Flowers* ſometimes in threes, the lowermoſt on a fruit-ſtalk ſhorter than the flower. *Empal.* (ſometimes) pubeſcent. LEERS. ST.

A callous hairy ſubſtance between the baſe of the ſpikes and the ſtraw. LEERS. but not diſcernibly, at leaſt in dried ſpecimens. ST.

Dots on the leaf-ſtalks ſcarcely viſible; LEERS and CURT. in my ſpecimens very obvious. ST.

The longer fruit-ſtalk ſupporting a flower with only a pointal; SCOP. but in my ſpecimens both flowers have chives and pointal; but when 3, the uppermoſt has neither. ST.

Empal. valves bordered with a woolly fringe (ſpecimen from the ſon of Prof. Jacquin); or outer ribs roughiſh, as in Curt. f. 1. 11. 12. (ſpecimen from Prof. Leſke, titled *P. filiforme*, which may perhaps prove to be our Engliſh ſpecies)—*2nd valve* half or 3 times ſhorter than the bloſſom; the *outer* one as much ſhorter than the

the 2d.—The *4th valve*, (ſee obs. on the genus,) ſtill ſmaller, and figured by Curt. f. 8, is an additional proof that it is truly a Panicum, and not a diſtinct genus, as Haller and others have ſuppoſed. St.

Corn-fields near Batterſea; and Martha's Chapel, Guilford. Huds. [At Witchingham, Norf. Mr. Woodw.] A. July. Aug.

creeping PAN'ICUM *dac'tylon*. Spikes fingered, expanding; ſoft hairs on the inſide the baſe. Flowers ſolitary. The plant ſends out creeping runners. Linn.—Empalement of 2 valves. St.

Clus. ii. 217, *repr. by Lob. obs.* 12. 1, *and Ger. em.* 28. 3, *and cop. by Park.* 1179. 5.—*C. B. th.* 112. 113; *cop. in H. ox.* viii. 3. *row* 2. 4.—*Barr.* 753. 1.—*H. ox. ib.* 6.—*Spikes, Mont.* 99.—*Scheuch* 2. 11. *I.*

Bloſs. an awn-like thread proceeding from the baſe of the inner valve. Scheuch. St.

Bloſs. edges ſlightly woolly. *Flowers* pointing one way. Hall. St.

Empal. Huſks ſpear-ſhaped, finely tapering, expanding, nearly as long as the bloſſom. *Bloſs.* keeled. *Shafts and Summits* violet. Pollich. St.

Bloſs. Inner valve egg-ſhaped, keeled, as narrow again as the outer. The awn-like ſubſtance from its baſe apparently the rudiment of a pedicle analogous to thoſe in the Melica, &c. St.

(*C. B.* 117. *a good repreſentation of it.* Mr. Woodward, but from the deſcr. a diſtinct ſpecies.)

Sandy grounds, ſea-ſhore. Between Penzance and Market-jeu, Cornwall. Ray. P. July.

84. ALOPECU'RUS. Foxtail.

Pl. II. fig. 8.

Empal. *Huſk* 2 valves containing 1 floret. *Valves* equal, betwixt egg and ſpear-ſhaped; concave, compreſſed.

Bloss. 1 concave *Valve* as long as the empalement, with a long *Awn* upon the back fixed towards the baſe.

Chives. *Threads* 3, hair-like. *Tips* forked at each end.

Point. *Seed-bud* roundiſh. *Shafts* 2, like tendrils; reflected; longer than the empalement. *Summits* ſimple.

S. Veſs. The bloſſom incloſes the ſeed.

Seed. Single; roundiſh; covered by the bloſſom.

Eſs. Char. *Cup* 2 *valves. Bloſs.* 1 *valve.*

ALO

ALOPECU'RUS *praten'sis*. Spiked Straw upright. Huſks woolly. Bloſſoms without awns.—LINN. Bloſſoms awned. Huſks ſpit-pointed. ST.—Panicle ſpike-like, cylindrical. HUDS. and ST. *meadow*

Schreb. 19. 1.—*Mus. Ruſt.* iv. 2. 9.—*Stilling f.* 2, *out of bloſſom.*—*H. ox.* viii. 4. 8. *confirmed by Schreb. though denied by Linn.*—*Ger. em.* 11. 1.—*Park.* 1164. 3.—*(Barr.* 123. 1. *not the plant.)*—*Spike, &c. Leers* 2. 4.

That the *Bloſſoms* are awned, beſides the figures Schr. Leers, and Scheuch. ſee Pollich. i. p. 62. and Scheuch. p. 71. ST.

Empal. Keels fringed. Mr. HOLLEFEAR.

Foxtail Graſs. Meadows, very common. P. May. June.

This is the beſt graſs to ſow in low meadow grounds, or in boggy places which have been drained. Sheep, Horſes, and Goats eat it. Cows and Swine are not fond of it. LINN. But Dr. PULTNEY ſays, this is the moſt grateful of all graſſes, to Cattle.

ALOPECU'RUS *agreſ'tis*. Spiked ſtraw, upright. Huſks ſmooth.—Spike ſtrap-ſpearſhaped. Huſks almoſt ſmooth. HUDS. and pointed. ST. *field*

Curt. ii. 17.—*Schreb.* 19. 2.—*Fl. dan.* 697.—*Ger. em.* 11. 2.—*Barr.* 699. 2.—*Buxb.* v. 40. 1.—*J. B.* ii. 473. 1.—*Ger.* 9. 4; *repr. in C. B. th.* 53. 5; *and cop. by Park.* 1169. 8.—*Spike, &c. Leers* 2. 5.—*Mont.* 51.—*Scheuch.* 2. 6. *A. B. (Not Barr.* 699. 1, *as Lightf.; at leaſt I know of no deſcr. of it's ever having a bulbous root; nor* 14. 1. 2; 124. 2. *as the German. ſyn.; nor Park.* 1168. 7. *as Ray; nor Ger. em.* 10. 2. *as Curt.; nor Fl. dan.* 228, *as is evident from the* 2 *bloſs. in* 1 *empal.*—*H. ox.* viii. 4. *row* 2. 8. *is the A. pratenſis.)*

β Spike ſhorter. Awns bowed back. RAY *Syn. p.* 397. *n.* 2. *ſmaller*

Corn-fields and road-ſides. A. LEERS. P. LINN. July. Aug.

ALOPECU'RUS *bulboſus*. Straw upright. Spike cylindrical. Root bulbous.— *bulbous*

Barr. 699. 1.—*C. B. th.* 20.—*Ray* 20. 2. *Awns too ſtraight and ſtiff, giving it the habit of a Hordeum, in conſequence of which Linnæus has alſo referred it to the H. nodoſum.*—*Anders. bad.*—*Spike, Mont.* 54. *(Barr.* 680. 1. *and* 2. *not a Graſs.)*

Straw ſlender, about a foot high; bent at the lower joint. *Spike* ſlender, 1 inch long. *Leaves* 1 or 1½ inch long. *Root* bulbous, emitting many fibres and ſtems. RAY.

Florets longer, narrower, and much leſs hairy, than thoſe of the *A. geniculatus*. ST.

Straw

Straw ſometimes ſlightly kneed at the lower joint. *Awns* ſtiffer, and the *Valves* of the *empal.* ſhorter and more pointed than in the *A. geniculatus.* Mr. WOODWARD.

Alopecurus geniculatus bulboſus. HUDS.

In the firſt field, next the road, before you go into Northfleet. HUDS. [In a ſalt-marſh near Yarmouth. Mr. WOODWARD.]

P. June. July.

ſloat ALOPECU'RUS *geniculatus.* Straw aſcending. Spike cylindrical. Huſks diverging at the point; hairy. HUDS. blunt. ST.

Spike-bearing ſtraw bent as if broken. Bloſs. without awns. LINN. *ſyſt. veg.* (Awns ſometimes ſo concealed within the Empal. as to make the florets appear awnleſs. ST. from SCHEUCH. *p.*72. *l.*1.)

long-awned α Awns longer than the empalement. LINN. *fl. lapp.* ST.

Fl. dan. 861, *(confirmed by Mr. Woodward.)*—*H. ox.* viii. 4. *row* 2. 15.—*Ger. em.* 14. 2; *repr. in C. B. th.* 42, *and cop. by Park.* 1275. 7.—*Spike, &c. Leers* 2. 7.—*Scheuch.* 2. 6. *C. D. E.*—*(Fl. dan.* 564, *is an Agroſtis, as Muller has made it, and as is evident from the bloſs. with* 2 *valves.)*

Empal. Valves oblong, blunt; the keels and ſides covered with ſoft hairs lying flat. ST.

Spiked Float-graſs. Spiked Water-graſs.

Pools; wet vallies and meadows, and alſo on very dry hills. LINN. in which laſt ſituation its ſtraw is ſtill aſcending, and its awns are as long again as the empalement. ST.

ſhort-awned β Awns as long as the empalement. LINN. *fl. lapp.*

Awn, from a little below the middle of the back, riſing about 1-3d of its length beyond the empalement, but ſometimes not riſing up to it. *Empalement* 2-3ds of a line long. ST.

Tab. ic. 217; *Tab. hiſt. i.* 512.—*I have not ſeen theſe figures.*

Whole *plant* paler. *Flowers* whitiſh. *Spike* ſlenderer and ſhorter. RAY.

bulbous γ Roots bulbous. Mr. WOODWARD.

Merely a var. of the *geniculatus*, and not the *bulboſus.* HUDS. fl. ang. Ed. I. or *A. geniculat. bulboſus.* Ed. II.—On walls. Mr. WOODWARD.

Cows, Horſes, Sheep, and Goats eat it. Swine refuſe it.

bearded ALOPECU'RUS *monſpelien'ſis.* Panicle ſpike-like. Empalements rough. Bloſſoms with awns.—

H. ox. viii. 4. *row* 2. 3.—*Park.* 1166. 3; *(and* 1168. 3*?)*—*Panicle, Barr.* 115. 2.

Reſembles

Reſembles the *A. paniceus*, but 3 times as large. *Empal.* with a tubercle at the bottom. *Bloſs.* very ſhort, ſhorter than the awn. *Straw* and leaves ſtiff. *Huſks* rough, but ſmooth at the edge; both valves awned. LINN.

Marſhes and wet paſtures. A. June. July.

ALOPECU'RUS *panice'us*. Panicle ſpike-like. *hairy* Empalement ſet with ſoft hairs. Bloſſoms with awns.—

Schreb. 20. 3; *confirmed by the Germ. ſyn. but referred by Linn. to the A. monſp.—Barr.* 115. 1.—*Buxb.* v. 66. 1.—*Park.* 1164. 4?—*(Lob. adv.* 17. 1; *is the Lagurus ovatus, Ger. prov. and Fl. dan.* 861, *is the Al. geniculatus.)*

This ſpecies very much reſembles the *A. monſpelienſis*, but the whole plant is ſoft, and only 5 or 6 inches high. *Huſks* downy; woolly at the edges. *Awns* of the bloſs. ſhorter than thoſe of the empalement. LINN.

Bloſs. Valves 2, as ſhort again as the empalement; hollow, ſmooth; the *outer* 3 times as broad as the other; roundiſh-egg-ſhaped, blunt, with 4 teeth; an *awn* longer than the valve, iſſuing from below the point. *Inner valve* egg-ſpearſhaped, pointed; with 2 teeth. *Empal.* ending at the baſe in a hard tubercle. ST.

Dry ſoil. A. July.

83. PHLE'UM. Timothy-graſs.

Pl. II. fig. 9.

EMPAL. *Huſk* 2 valves, including a ſingle floret: huſk oblong, ſtrap-ſhaped, compreſſed; open at the end, and furniſhed with 2 ſpit-points. *Valves* equal, ſtraight, concave, compreſſed; one embracing the other; lopped; with a ſharp point at the end of the keel.

BLOSS. 2 valves, ſhorter than the empalement: *outer Valve* embracing the *inner Valve*, which is ſmaller.

CHIVES. *Threads* 3; hair-like; longer than the empalement. *Tips* oblong, forked at each end.

POINT. *Seed-bud* roundiſh. *Shafts* 2; hair-like; reflected. *Summits* downy.

S. VESS. None. The empal. and the bloſs. incloſing the ſeed.

SEED. Single; roundiſh.

ESS. CHAR. *Empal.* 2 *valves, ſitting, ſtrap-ſhaped, lopped, with* 2 *ſpit-points at the end. Bloſs. incloſed.* LINN. *Empal.* 2 *valves. Bloſs.* 2 *valves, membranaceous.* ST.

OBS.

Obs. In the *Phl. arenarium* the empalement is ſpear-ſhaped and not lopped; and muſt we confine the title of Phleum to ſuch only as are ſpiked? St.

ſea PHLE'UM *arena'rium*. Spike egg-ſhaped, fringed. Stem branching.—

Park. 1170. 4. *is a good repreſentation of the ſpike, though meant for the Phl. prat. nodas.—Pluk.* 33. 8.—*Spike, Mont.* 74. *good.* (*Not Barr.* 717.)

Spikes ſcarcely riſe quite out of the ſheaths of the leaves. Linn.

Sheaths of the leaves wider than the ſtraw, eſpecially the upper. *Spikes* cylindrical, but tapering at the baſe and point, from ½ to 1 inch long. *Empal. valves* tapering off to a point, not lopped, keel fringed from the middle to the point. *Bloſs.* hairy. Sch. St.

Straw, when fully grown, bare from 2 to 3 inches above the upper leaf.—*Empal.* Outer edge fringed towards the top. *Bloſs.* membranaceous, valves marked with fine teeth at the end. Not cartilaginous, nor any appearance of a double bloſſom, as in the *Phalaris*. St.

Phalaris arenaria. Huds. which ſee.

branched PHLE'UM *panicula'tum*. Panicle cylindrical, ſpike-like. Huſks naked. Straw ſometimes branched. Huds.

Barr. 28. 2. *and not the Phl. pratenſe as his editor and Schreber ſuppoſe.—Barr.* 54, *a var.? confirmed by Haller.—Ger.* 10. 1; *repr. in C. B. th.* 51, *and cop. by J. B.* ii. 471. 3.—*Spike; Mont.* 53.—(*Not H. ox.* viii. 4. *row* 3. 2, *as Hall. as is evident from the fringed keels of the ſingle floret.—Barr.* 21. 2. *ſeems awned.*)

Root fibrous. *Straw* a foot high, ſomewhat ſlanting; cylindrical, ſmooth, knotted. *Leaves* ſeveral, alternate, upright, on leaf-ſtalks; ſword-ſhaped, pointed, ſtringy, rough. *Leaf-ſtalk* cylindrical, very long, ſheathing, rough. *Leaf-ſcale* ſingle; within the leaf, ſheathing, blunt, membranaceous. *Panicle* very long, bent to each ſide; diviſible into lobes. *Huſks* tiled, tapering to a point; bellying out upwards. *Bloſs.* awnleſs. Huds.

Straw 2 inches to half a foot high. *Leaves* in the ſmaller ſpecimens riſing above the ſtraw. *Panicles* from 1 to 4½ inches long, whitiſh green; ſlightly tapering upwards: branches ſtiff, lying cloſe. *Empal. Valves* tapering downwards, ſcarcely embracing each other; obliquely lopped, inverſely triangularly ſpear-ſhaped, (inverſe deltoideæ) marked on the outſide with 3 ribs ending in very ſhort ſpit-points, nearly equal, the outermoſt rather ſmaller. St.

Phalaris

Phalaris phleoides, LINN. according to HALL. POLLICH. and HUDS.; but it is a different plant; which ſee.

Phleum culmo recto, &c. HALL. n. 1531. ST.

Gram. typh. aſper. prim. SCHEUCH. n. 61. ST.

Meadows below King's Weſton, near Briſtol. Newmarket heath. [Gogmagog hills, Cambridge. Mr. WOODWARD. Bournbridge, Cambridgeſhire. Mr. CROWE.] P. Aug.

PHLE'UM *pratenſe*. Empalements ſtrap-ſhaped, fringed, lopped, awned. Awns ſhort. SCHREB. Awns ſhorter than the empalement. ST. Spike cylindrical, very long. Keel of the huſks fringed. HUDS. *common*

α. *Phleum pratenſe*. Spike cylindrical, very long, fringed. Straw upright.—LINN. *greateſt*

Schreb. 14. 1. 2.—*C. B. pr.* 10. *th.* 49. 1.—*H. ox.* viii. 4. *row* 3. 1 *and* 2.—*J. B.* ii. 472. 2.—*Park.* 1170. 1.—*Spike*, &c. *Leers* 3. 1.—*Mus. ruſt.* v. 1. 1.—*Mont.* 52.—*(Synonyms of P. paniculatum alſo referred to by Linn. but the deſcription of C. B. accords better with the paniculatum.)*

Straw bulbous at the baſe. LEERS.

One *Valve* of the bloſs. cloven, the other entire. SCOP.

Spike ſometimes 5 inches long. W.

Timothy-graſs.—Herd-graſs in N. America.—In paſtures, common. P. July.

Cows, Horſes, and Goats eat it. Swine refuſe it.—Account of it in *Mus. ruſt.*—Dr. PULTNEY ſays, that notwithſtanding the character which this graſs acquired from Le Rocques recommendation, Sheep diſlike it; neither are Cows or Horſes fond of it.—But LEERS ſays, it affords an excellent paſture for Horſes.

γ. *P. prat. nodoſum*. SCHREB. and HUDS. *bulbous*

Phleum nodoſum. Spike cylindrical. Straw aſcending. Leaves oblique. Root bearing bulbs. LINN.

Schreb. 14. 3. 4. *and* 5.—*Barr.* 22. 1; *cop. by Pet.* ii. *gram. ital.* 4. 1.—*Fl. dan.* 380.—*Barr.* 53; *cop. by Pet. ib.* 2.—*H. ox.* viii. 4. *row* 3. 3. *and row* 2. 21.—*Barr.* 22. 2, *cop. by Pet. ib.* 3. 16. *J. B.* ii. 472. 1.—*Ger.* 10. 2; *repr. in C. B. th.* 52, *and cop. by Park.* 1170. 3, *and J. B.* ii. 472. 3.—*Dod.* 562; *repr. in Lob. obs.* 10. 1.—*Ger. em.* 12; *uppermoſt fig. and cop. by Park.* 1170. 2.—*and* 1170. 4?—*Spike*, &c. *Leers* 3. 2. *(C. B. th.* 20. *is the Alopecurus genic. bulbos. Spike ſoft, awned.)*

Very much reſembles the P. prat. but the *Root* bulbous, (as is C. B.'s fig. of the P. prat.) ST.

Straw covered by the ſheaths of the leaves. *Spike* ſmooth. *Tips* white. *Leaves* pointing from oppoſite ſides of the ſtraw; ſmooth; except the edges, which are rough. LINN.

Root compoſed of ſeveral bulbs, connected together. *Spike* rougher, an inch and half long; in a very dry ſoil only half an inch, and oval. *Florets* twice as ſmall; the lowermoſt barren and ſhrivelling. *Empal.* the ſharp points, when the ſeed is ripe, more bent in. Being tranſplanted into rich land, it became, the year following, the true *Phleum pratenſe*. LEERS.

Cultivated in a garden, the *Root* becomes fibrous, and the *Straw* upright. HUDS.

Florets ſometimes with 4 ſhafts and 4 downy ſummits. WITH.

Barren paſtures, and road-ſides, common. P. July. Aug.

mountain PHLE'UM *alpi'num*. Spike egg-cylindrical.—black. LINN.

Fl. dan. 213.—*Scheuch. pr.* 3. 1.

Empal. Valves 1½ line long. Awns 1 line long. SCHEUCH. *and fig. of Fl. dan. Phleum pratenſe.*

Said to be found on Craigneulic; above Killin. LIGHTF. P.

bearded PHLE'UM *crini'tum*. Empal. ſtrap-ſhaped, a little bulging at the baſe; rough with hair; awned. Awns hair-like; very long. SCHREB. longer than the empal. ST.

Straw nearly upright. Panicle compact, ſpike-like. Husks awned. Awns very long. HUDS.

Cultivation hath ſhewn that Meſſrs. GERARD and GOUAN have very properly conſidered the following as only varieties. SCHREB.

Alopecurus ariſtatus. GOUAN. HUDS.

Bloſs. 2 valves; one broader than the other, and ſending out a ſhort awn. GER. PROV. and ST.

Huſks ſtrap-ſhaped, diverging at the points. *Awns* terminating, very long. *Bloſs.* very ſmall; awns from the back; ſhort. HUDS.

Bloſs. valves 2; *outer* awned and blunt, with 5 teeth. *Awn* expanding, ſtraight; an extenſion of the middlemoſt tooth, generally longer than the bloſſom, and often extending beyond the valves of the empalement; in examining it readily ſeparating, and often left behind within the valve of the empalement; whence, it is probable, the accurate Scheuchzer was led to deſcribe it as *awnleſs*. ST.

1. *Alopecurus monſpelienſis*, which ſee.
2. *Alopecurus paniceus*, which ſee.

80. PHAL'ARIS. Canary.

Pl. II. fig. 10.

EMPAL. *Huſk* 2 valves, including a ſingle floret; compreſſed; blunt. *Valves* boat-ſhaped, compreſſed, keeled, more blunt upwards; the edges ſtraight, parallel, approaching.

BLOSS. *Valves* 2, ſmaller than the empalement. *Outer Valve* oblong; edges rolled in; tapering to a point. *Inner Valve* ſmaller.

CHIVES. *Threads* 3, hair-like, ſhorter than the empalement. *Tips* oblong.

POINT. *Seed-bud* roundiſh. *Shafts* 2; hair-like. *Summits* woolly.

S. VESS. The bloſſom cloſely ſurrounds the ſeed, like a ſhell, without opening.

SEED. Single; covered; ſmooth; round, but tapering towards each end.

ESS. CHAR. *Empal.* 2 *valves, keeled, equal in length, incloſing the bloſſom.*

PHAL'ARIS *canarien'ſis*. Panicle egg-ſhaped, ſpike-like. Huſks bellying, hairy. Keel ſmooth. HUDS. *manured*

Panicle ſomewhat egg-ſhaped, ſpike-like. Huſks keeled. LINN.

Ludw. 117.—*Schreb.* 10. 2.—*Math.* 919.—*Trag.* 669.—*Ger.* 80. 1; *repr. in C. B. th.* 534.—*Dod.* 510; *repr. by Lob. obs.* 26. 1; *and Ger. em.* 86, *and cop. by Park.* 1163. 1.—*J. B.* ii. 442. 2.—*H. ox.* viii. 3. *row* 3. 1.—*Spike, Mont.* 44.—*Fructif. Leers* 7. 3.* *(Barr.* 9. 2. *is the Phalaris bulboſa.)*

Bloſs. double, griſtly, gloſſy; *valves* embracing, keeled: *the outer* adhering to the inner and ſeparating along with it from the empalement; valves nearly equal, parallel to, and embracing thoſe of the inner; awl-ſtrapſhaped, 3 times as narrow and almoſt as ſhort again, nearly ſmooth, membranaceous at the edge: *the inner* as in the generic deſcript. and hairy.—The *outer* is noticed in this ſpecies by Scheuch. who calls it a 4 huſked follicle, but I have found it equally preſent, though often very minute, in the *bulboſa paradoxa* and *arundinacea*, though not in the *erucæformis*, which LINN. obſerves has a near affinity to the *Paſpalum*. ST.

This is a native of the Canary iſlands, but now propagates itſelf in Heſſe. LINN.

Valves of the empal. with 2 green ribs on each ſide, and much larger than the bloſſom. Within theſe are 2 other ſmall, white, ſkinny valves, not more than half the length of the bloſſom. WITH.

Road-ſides and uncultivated ground. [New's-Wood, adjoining to Malvern, Worceſterſh. Mr. BALLARD.] A. June.—Sept.

It is often cultivated for the ſake of the ſeeds, which are found to be the beſt food for the Canary, and other ſmall birds. It nouriſhes the *Coccus phalaridis*.

ſea

PHAL'ARIS *arena'ria*. Panicle oblong-ſpearſhaped; ſpike-like. Huſks ſpear-ſhaped, the keel fringed. HUDS. *confirmed by Mr.* WOODWARD.—

Phleum arenarium. LINN. which ſee.

cat's-tail

PHAL'ARIS *phleoi'des*. Panicle cylindrical, ſpike-like, ſmooth; here and there viviparous.—

Fl. dan. 531.—*Viviparous floret, Scheuch.*—2. 5. *C.*

Spike pale, diviſible into lobes. It ſo exactly reſembles ſome of the Phleums, that it may be eaſily miſtaken for one of that genus; but when you examine the ſpike and preſs it with your fingers, it ſeparates, and proves to be a panicle; and the *Huſks* are not notched at the end. *Flowers* different from thoſe of the Phleum. It is a kind of intermediate plant between the Phalaris, Phleum, and Alopecurus. LINN. ST. A different plant from the *Phleum paniculatum* of Mr. Hudſon. Mr. WOODWARD. ST. *Panicle* $2\frac{1}{2}$ inches long. *Flowers* have the habit of thoſe of the Phalaris; none viviparous in the ſpecimen ſent by Mr. Woodward; from 1 to $1\frac{1}{4}$ line long; compreſſed; bowed gently inwards with their ſides facing the ſpike-ſtalk. *Empal. Valves* oblong-ſpear-ſhaped, keeled, marked with 3 ribs; edges membranaceous, which, on the ſide facing the ſpike-ſtalk, are ſeparate to the baſe, and on the outer ſide lapping over; keel roughiſh above, and ending in ſhort, rough, awn-like ſpit-points; the *outer* juſt ſenſibly ſhorter, narrower, and taper-pointed; the *inner* between lopped and tapering. *Bloſs.* half as long as the empalement, betwixt griſtly and membranaceous; awnleſs; not ribbed; ſprinkled with numerous minute dots and a few hairs. A ſtiff awn-like thread riſes from the baſe of the inner valve, 1-3d of its length, analogous to that of *Arundo arenaria*. ST. Never found any of the florets viviparous. Mr. WOODWARD.

[Firſt diſcovered in Gr. Brit. by Mr. WOODWARD and Mr. CROWE, near Swaffham, Norfolk, in 1780.] P. July.

Sheep and Goats eat it. Swine refuſe it.

PHAL'ARIS

PHAL'ARIS *arundina'cea*. Panicle oblong, cluſtered. Huſks egg-ſhaped. Keel rough. HUDS. Panicle oblong, bellying, large. LINN. *Reed*

Ger. em. 26. 2. β.—*H. ox.* viii. 6. 43. β. *ib.* 41.—*Fl. dan.* 259.—*Park.* 1273. 2.—*Ger.* 24. β; *repr. in C. B. th.* 37.—*J. B.* ii. 476. 2. β.—*C. B. th.* 92, *poſſibly a var.*—*Branch of the panicle, &c. Leers* 7. 3.—*Floret, Mont.* 59.—*(Ger.* 21. 12, *repr. in C. B. th.* 94, *and cop. by Ger. em.* 8. 3, *Park.* 1181. 1, *and J. B.* ii. 481. 1; *and alſo Lob. adv.* 3; *are not the plant; and Ger.* 7. 2, *repr. in C. B. th. is the Poa aquatica.)*——*Thoſe marked* β *are figures of a var. to be met with in our gardens, with ſtriped leaves, which indeed has not been found in a wild ſtate in Gr. Brit. but differs from the other only in colour.*

Leaves broad, ſcored; panicle nearly egg-ſhaped. LINN.

Valves of the *empal.* with 2 ribs on each ſide, and not much longer than the bloſſom. *Valves* of the *bloſs.* hairy at the edges, and furniſhed with a ſmall, ſlender, hairy appendage on each ſide. WITH.

Outer valve of the bloſſom not rolled in. Mr. HOLLEFEAR. Haller calls it an *Arundo*; but in that genus the bloſſom is ſingle. ST.

Banks of rivers. P. July. Aug.

It is uſed to thatch ricks or cottages, and laſts much longer than ſtraw. In the province of Scandia they mow it twice a year, and their cattle eat it. LINN. It is of a hard texture, and cattle are not fond of it. SCHREB.

Horſes, Cows, Sheep, and Goats eat it. Swine refuſe it.

β Leaves more of a ſea-green. RAY *ſyn. p.* 400. *n.* 1. ſea-green

Sea-coaſt of Jerſey, and near Lhanperis.

There is a cultivated variety of this in our gardens with beautifully ſtriped leaves. The ſtripes are generally green and white; but ſometimes they have a purpliſh caſt. This is commonly called *Painted Lady-graſs*, or *Ladies Traces*.

85. MIL'IUM. Millet.

Pl. II. fig. 11.

EMPAL. *Huſk* 2 valves incloſing a ſingle floret. *Valves* egg-ſhaped, tapering to a point, nearly equal.
BLOSS. 2 valves, ſmaller than the empalement. *Valves* egg-ſhaped; 1 larger than the other.
CHIVES. *Threads* 3; hair-like; very ſhort. *Tips* oblong.
POINT. *Seedbud* roundiſh. *Shafts* 2; hair-like. *Summits* pencil-ſhaped.
S. VESS. The bloſſom incloſes the ſeed, which is very ſmooth.
SEED. Single, covered, roundiſh.
ESS. CHAR. *Empal.* 2 *valves, containing* 1 *floret. Bloſs. very ſhort. Summits pencil-ſhaped.*
OBS. Bloſſom in the *M. effuſum* nearly as long as the empalment. ST.

Panick MIL'IUM *lendig'erum*. Panicle ſpike-like. Flowers with awns.—

Schreb. 23.3.—*Pluk.* 33. 6.—*Gouan. hort.* 1. 2. *p.* 38 *bad, (H. ox.* viii. 3. 12. *is not the plant.)—Branch of the panicle, Scheuch.* 3. 11. *C.*

Straw oblique. *Panicle* ſpear-ſhaped. *Huſks* bellying out at the baſe; *valves* unequal. *Bloſs.* very ſhort, egg-ſhaped, awned; *awn* from below the point, as long as the huſk. HUDS. *Bloſs.* valves 2, unequal, the ſmaller almoſt imperceptible without a glaſs. Mr. WOODWARD. *Seed* contained in the bellying part of the empalement. GOUAN.

Empal. valves egg-ſpearſhaped, below compreſſed and gloſſy, above keeled, keel rough. *Bloſs.* membranaceous, hairy at the baſe and ſides; outer *valve* oval, generally awned, hollow, ſlightly cloven at the end, twice as broad as the other; inner egg-ſpear-ſhaped, as long as the outer, thinner, notched at the end, marked longitudinally with 2 lines, one terminating in each tooth. *Awn* generally even with the empal. but ſometimes longer, bent aſide obliquely about half-way up, inſerted at the back of the outer valve at the bottom of the cleft yellowiſh brown; above white. *Seed* oval, flatted, ſmooth, amber coloured. In its ſtructure it is an *Avena*, and totally different from the *Milium effuſum*. ST.

Alopecurus ventricoſus. HUDS.

Meadows and paſtures. Iſle of Sheepey plentifully. [Cornfields, Gillingham, Norfolk. Mr. WOODWARD.] A. Aug. Sept.

MIL'IUM

MIL'IUM *effu'ſum*. Flowers without awns, in ſcattered panicles.— *ſoft*

Curt. iv. 43.——*H. ox.* viii. 5. 10.——*Ger.* 6. 1, *repr. in C. B. th.* 141, *and cop. by Park.* 1153. 1.—*Portion of the panicle, Leers* 8. 7.—*Scheuch.* 3. 6.—*Floret. Mont.* 61. *(Dod.* 561. 2, *cop. in Ger. em.* 6. 1, *ſeems to be a different plant.)*

Bloſs. ſomewhat cartilaginous, gloſſy. HALL. ST. like that of the *Phal. arund.* but no hairs at the baſe, and not keeled; juſt ſhorter than the empalement. ST.

Millet Graſs. Wet woods, common. [Frequent in Norfolk. Mr. WOODWARD.] A. June. July.

Horſes, Cows, Sheep, and Goats eat it.

86. AGRO'STIS. Bent.

Pl. II. fig. 12.

EMPAL. *Huſk* 2 valves, incloſing 1 floret, tapering to a point, ſomewhat ſmaller than the bloſſom.

BLOSS. 2 valves, tapering to a point, *one Valve* larger than the other.

CHIVES. *Threads* three; hair-like; longer than the bloſs. *Tips* forked.

POINT. *Seedbud* roundiſh. *Shafts* 2; reflected, woolly. *Summits* ſet lengthways with ſtiff hairs.

S. VESS. The Bloſſom adheres to the ſeed without opening.

SEED. Single; cylindrical, but tapering towards each end.

ESS. CHAR. *Empal.* 2 *valves, containing* 1 *floret; ſomewhat ſmaller than the bloſſom. Summits longitudinally rough with hairs.* LINN.

Empal. 2 *equal, pointed valves, containing* 1 *floret. Bloſs.* 2 *unequal valves ſmaller than the empal. Summits feathered.* HUDS. ST.

OBS. The *A. capillaris* has only one petal, and therefore ought rather to be conſidered as a ſpecies of *Alopecurus.* SCOP.

This is an artificial genus. *A. ſpicaventi, interrupta, miliacea, and bromoides,* have the ſtructure of *Bromus*; *canina* and *arundinacea* of *Avena.* The laſt Hall. Scop. and Wigg. have referred to *Arundo,* but not to mention the bent awn, the hairineſs at the baſe of the bloſs. is much leſs than in ſeveral of the ſpecies of *Avena.* ST.

* *With Awns.*

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* The A. ſtolonifera, alba, and pumila are ſometimes awned. ST.

silky

AGRO'STIS *ſpicaven'ti.* Awn ſtraight, ſtiff, very long, fixed to the outward petal. Panicle expanding. LINN. Awn inſerted juſt below the point of the petal. ST.

Fl. dan. 853.—*(H. ox.* viii. 5. *row.* 2. 3. ST.) *J. B.* ii. 462. 1.—*Ger.* 5. 2, *repr. in C. B. th.* 35, *&c. is the Aira cæſp. though C. B.'s deſcr. is undoubtedly that of the Agroſt. Spicav.—Branch of the panicle, Leers* 4. 1. *Scheuch* 3. 10. *(Mont.* 62 *is not awned.)*

Haller calls it an *Avena*, but improperly, according to his own definition of that genus. See obſ. on the Genus. *Emp. valves* roughiſh towards the points. Grows amongſt corn, and is equally liable to the ſmutt. ST.

Sandy fields, very frequent. A. June.—Aug.

Horſes and Goats eat it. Sheep refuſe it.

brown

AGRO'STIS *cani'na.* Empalements elongated. Awn from the back of the petal, bowed back. Straws trailing, ſomewhat branched. LINN. Panicle expanding. Bloſſom bare, one of the valves twice as long as the other, awned. Awn from the back ſtraightiſh. HUDS.*

Branch of the panicle, Leers 4. 2. *(Fl. dan.* 161. *and Scheuch.* 3. 9. *C. is the A. ſtolonifera with awns.)*

Panicle moſtly elongated; its branches compact; of a ſhining purpliſh hue; more obſervable at a diſtance than quite cloſe. *Empal.* coloured. *Awn* briſtle-ſhaped, white, twice the length of the floret, ſtraight, marked in the middle with a brown knot. *Flowers* roughiſh. LINN. *Panicle* compact; when in flower ſpreading, of a violet purple, ſhining; at length pale. *Empal.* outer valve roughiſh towards the point. *Bloſs.* back rough. *Awn* from the middle of the back twiſted, white, ſtraight, as long again as the bloſſom, at length bent back at a brown knot. (See X in the fig.) *Bloſs.* inner valve often wanting, and when preſent exceedingly minute. LEERS. If the *awn* is uniformly *marked with a brown knot* I have never ſeen the *A. canina*, and from Mr. Hudſon's new character it ſhould ſeem that his *canina* is a different plant from that of Leers and Linn. ST. Awns ſometimes wanting. CURT. ST.

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* Mr. Hudſon comprehends under this newcharacter the following as varieties.

β Root-leaves thread-ſhaped. Stem-leaves flat. Straw nearly upright. HUDS. *Agroſtis alpina var.* 1. which ſee.

γ Leaves briſtle-ſhaped, ſtiff, ſea-green. Straw upright. HUDS. *Agroſtis alpina var* 2. which ſee.

OBS. In β however the panicle is cloſe, the bloſſom hairy at the baſe, inner valve exceedingly minute, and the awn bent aſide at an angle, ST.

Gram.

(*Gram. paniculat. ſupin. ad. &c.* SCHEUCH. *p.* 141; and *Agroſtis canina*, SCHREB. *ſpicileg.* POLLICH. *and* HUDS. appear to me to be the awned var. of the *A. ſtolonifera.* ST.)*

Meadows, paſtures, and moiſtiſh heaths. P. July. Aug.

Cows and Horſes eat it.

AGRO'STIS *alpi'na.* Leaves briſtle-ſhaped. Straw upright. Awn bent at an angle, inſerted juſt above the baſe of the bloſſom. Bloſſom hairy at the baſe. ST.† *mountain*

Scheuch. pr. 4. 1.—*Florets, Scheuch.* 3. 9. *A. B.* (*Fl. dan.* 161. *appears to be the A. canina. Leaves ſtrap-ſhaped. Flowers not a line long. Awn from the middle of the back. Bloſs. no tuft of hairs at the baſe.*)

1. *Plant* rough all over from a number of minute points directed upwards. *Panicle* cloſe, even when in flower, 2 inches long. *Empal. valves* keeled; *the outer* ½ to nearly 1 2-3rds line long; *the inner* 1 ½ long. *Bloſs.* 1 line long: *outer valve* lopped and torn at the end, a tuft of hair at the baſe on the inner ſide; *inner valve* exceedingly minute, the length of the ſeed-bud, egg-ſhaped, pointed. *Awn* nearly twice as long as the bloſſom, extending from ¼ to ½ line beyond the empalement; below the flexure twiſted. ST. *rough*

Dryiſh heaths. HUDS.

Gram. paru. paniculat. &c. SCHEUCH. *p.* 140.

Avena monantha paniculata, gluma, &c. HALL. *hiſt. n.* 1477.

Agroſtis alpina. SCOP. carn. Ed. 2. n. 86, and Germ. ſynon. 1. 198. *Agroſtis canina.* β. HUDS.

2. Leaves ſmooth. Panicle ſpreading. *From* SCHEUCH. *Panicle* 1—1½ inch. *Flowers* very thinly ſcattered, 1 line long, or ſomewhat more. *Awn* extending 1—1½ line beyond the empal. SCHEUCH. *ſmooth*

Gram. paniculat. capillac. &c. SCHEUCH. *p.* 141. *n.* 2.

Avena monantha paniculata, fol. &c. HALL. *hiſt. n.* 1478.

Argroſtis canina γ. HUDS.

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* In no genus of the Graſſes are the ſpecies ſo ill aſcertained as in the Agroſtis, and no wonder, when a circumſtance which I have ſhewn to be ſo inconſtant, as the abſence or preſence of the awn of the bloſſom, has been fixed upon as a primary mark of diſtinction. To ſupply this loſs I would recommend that particular attention be paid to the *open* or *cloſed* ſtate in which the *valves of the empalement* are found immediately after the ſhedding of the duſt and the ripening of the ſeed, and alſo whether the *flowers* are *ſcattered* or *cluſtered*, (ſparſi or congeſti.) ST.

† AGROSTIS *alpina*, foliis ſetaceis, culmo erecto; ariſta recurva, baſi corollæ inſerta; corolla baſi piloſa. ST.

This and alſo var. 1. being tranſplanted into a moiſtiſh ſoil, became the *A. canina*. HUDS. But I cannot perceive any appearance of the brown knot deſcribed by Linn. and figured by Leers in the *A. canina*.——Haller deſcribes them both, and alſo the *A. canina* as ſpecies of AVENA, with which genus they correſpond in habit as well as in ſtructure. ST.

Dry mountainous heaths. Hall Down near Exeter, and other places in Devonſhire. HUDS.

ſhort awned AGRO'STIS *vinealis*. Empalements coloured. Awn from the back of the bloſſom, almoſt as long as the empalement. Straws aſcending. SCHREB. Awn nearly ſtraight, from below the middle of the back. ST.

Scheuch. 3. 9. D. E. awns much longer than deſcribed.

Differs from the *A. canina* in having flowers twice as long. *Awns* in general not longer than the empalement, but ſometimes they project as much as a line beyond. *Flowers* ſometimes awnleſs. It varies in the breadth of its *leaves*, the heighth of the *ſtraw*, and the ſhape of its *panicle*. The ſize of its *flowers* is the only circumſtance that is conſtant. Approaches very near to the *Agroſtis capillaris*. SCHREB. *Panicle* cloſe, from 3 to 5 inches long. *Empal. outer valve* $1\frac{1}{4}$ line long, juſt perceptibly longer than the inner; lower part of the back browniſh purple, edges and upper part yelloviſh brown; keels beſet above with rough points. *Bloſs.* juſt ſhort of 1 line in length, beſet with exceedingly minute rough points; marked with 4 ribs, and a few hairs at the baſe. *Awn* hair-like; moſtly ſtraight, white, $\frac{1}{2}$ line long, and ſcarcely even with the point of the bloſſom, but more rarely 1 line long, yelloviſh, and juſt ſenſibly bent aſide at the baſe, ſometimes inſerted $\frac{1}{2}$ way between the middle and the baſe. ST.

Gramen canin. vineale. SCHEUCH. gram. 143. n. 1.

Avena monantha, panicula ſparſa, &c. HALL. hiſt. n. 1481.

Agroſtis vinealis. SCHREB. gram. ii. p. 37, and ſpicileg. p. 47. Germ. ſynon. i. p. 206.

Specimens from Dr. Withering's herbarium, gathered in the N. of England, place unknown. ST.

** *Without Awns.*

creeping AGRO'STIS *ſtoloniſera*. Without awns. Leſſer branches of the panicle expanding. Straws creeping. Empalements equal.—

Ger. em. 26. 1. cop. by Park. 1174. 4. and J. B. ii. 480. 1.—Ger. 24. 1. repr. in C. B. 13.—Part of the panicle, Leers 4. 6. (Fl. dan. 564, can hardly be a var. of this, as the valves of the bloſs.

bloſs. are nearly equal.—J. B. ii. 459. 1. *is a var. according to Haller.—H. ox.* viii. 2. 7. *not the plant.)*

Panicle ſcattered, about 3 inches long. *Empal.* ſhort of a line in length. *Bloſs.* ſomewhat ſhorter than the empalement. SCHEUCH. ST. *Panicle* ſtraddling, with but few flowers. *Fruit-ſtalks* almoſt finer than a hair, horizontal, ſtraight. *Pedicles* waved, ſtraddling. *Flowers* the ſmalleſt of our ſpecies, whitiſh. *Empal. valves* nearly equal. LEERS. ST. *Panicle* at firſt contracted. POLLICH. *Bloſs. outer valve* ſometimes awned. *Awn* from above the baſe, where even with the point of the empalement bent aſide, generally twice as long as the bloſſom, whitiſh, but in ſome of the flowers very ſhort, and ſcarcely diſcernable. In this ſtate it is deſcribed by authors under the following titles:

Gram. paniculat. ſupin. ad. &c. Scheuch. p. 141, which LINN. has referred to the *A. canina*.

Agroſtis canina. POLLICH. ST.

Straw ſhorter than the root-leaves. *Sheath* of the upper leaf bellying out. *Flowers* roughiſh. LINN. *Straws* from a ſpan to a foot high. *Straw-leaves* rough, with points directed upwards. *Empal.* ſhort of a line in length. SCHEUCH. ST.

Panicle looſe, ſtraddling, with but few flowers. *Fruit-ſtalks* hair-like, horizontal, ſtraight. *Pedicles* ſhort, waved, ſtraddling. LEERS. ST.

Is it a var. of the *A. alba*, or of the capillaris? LEERS.

A. polymorpha ſtolonifera. HUDS.

Moiſtiſh meadows and paſtures, but not common.

Cows, Horſes, and Sheep eat it. P. Aug.

α Leaves long and very narrow. narrow leaved

A. polymorpha ε. HUDS.

Shady thickets. June. July.

β Leaves narrow, but ſhorter than the former. Panicle much ſpread. Flowers very ſmall. fine

A. Polymorpha β. HUDS.

Greenwich Park. P. July.

AGRO'STIS *capilla'ris*. Panicle very ſlender. Empalements awl-ſhaped, equal; a little rough with hair; coloured. Bloſſoms without awns.— *fine*

Mus. ruſt. iv. 2. 10. *a panicle out of bloſſom.—Fl. dan.* 163.—*Stillingf.* 3. *panicle, out of bloſſom.—Branch of the Panicle, Leers* 4. 3. *(but is not this the A. canina without awns?) Scheuch* 3. 5. *B.—Floret, Mont.* 64. *(H. ox.* viii. 5. *row.* 2. 3. *is agroſt. ſpi. caventi.)*

Fruit-ſtalks

Fruit-ſtalks very fine. No *ſuckers*. LINN. *Tips* yellow. *Huſks* of the empal. light red, with white edges. MŒNCH.

Bloſs. inner valve very minute. Mr. HOLLEFEAR. More than twice as ſhort as the outer. ST. Sometimes awned. CURT.

A. polymorpha capillaris. HUDS.

Paſtures and road ſides, very common. P. Aug.

wood AGRO'STIS *ſylvat'ica*. Panicle compact; without awns. Bloſs. equal to the empalement; ſhorter before flowering; afterwards twice as long. HUDS. Panicle compact; without awns. Empalements equal; ſhorter than the bloſſom before flowering; but afterwards twice as long. LINN.

(Fl. Dan. 701. is awned.)

Approaches very nearly to the *A. ſtoloniſera and capillaris*. *Panicle* expanding, purpliſh brown. *Flowers* ſpear-ſhaped, ſome ſcarcely a line long, others more than 3 lines in length. In the ſmaller ones the *empalement* is longer than the bloſſom, in the larger it is half as ſhort again. POLLICH.

Agroſtis polymorpha ſylvatica. HUDS.

Ray ſyn. 404. *n.* 13. is referred by Linn. to this ſpecies and alſo to the *arundinacea*. ST.

Moiſtiſh woods. Biſhops Wood near Hampſtead. P. Aug.

marſh AGRO'STIS *al'ba*. Panicle looſe. Empal. equal; without awns. Straw creeping.—

H. ox. viii. 6. *row.* 1. 27.—*Lower part of the panicle*, *Leers* 4. 5. *(Vaill.* 17. 5. *is an aira.)*

Stem ſtriking root at the joints.

Flowers roughiſh. LINN.

Tips violet colour. *Huſks* of the empal. green. MŒNCH.

Panicle-branches cloſely beſet with flowers immediately from their baſe. SCHEUCH. POLLICH. ST. *Straws* 2 to 3 feet high. *Panicle* 6 inches long; between contracted and open. *Fruit-ſtalks* numerous, rather upright. *Pedicles* very ſhort, ſtraddling. *Florets* very numerous, cloſely crowded round the baſe of the fruit-ſtalks, giving the appearance of whorls. LEERS. ST. Sometimes awned. CURT. *Empal. valves* while in bloſs. 1 line long, and ſomewhat longer than

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OBS. POLLICH propoſes to combine the 5 preceding ſpecies under the common name of *canina*; and HUDSON has actually diſpoſed the 4 laſt as varieties of what he thus characterizes, and calls

AGRO'STIS *polymor'pha*. Panicle expanding. Keel of the empalement rough. Bloſſom awnleſs, one of the valves very ſhort. HUDS. ST.

than the bloſſom; when out of bloſſom 1¼ long and half as long again as the bloſſom; the outermoſt juſt perceptibly longer. *Bloſs.* 2-3ds of a line long; *outer valve* ſometimes awned. *Awn* hair-like, white, ſtraight, from below the point of the valve, and juſt riſing beyond it. ST.

A var. of the *capillaris*. HALL and LEERS.

Panicle coarſer and thicker; *leaves* larger and firmer; *flowers* larger and thicker, greener, and with a paler tinge of purple than thoſe of the *A. ſtolonifera and capillaris*. POLLICH. ST.

Gram. alpin. panicula, &c. SCHEUCH. *p.* 131. ST.

Agroſtis polymorpha paluſtris. HUDS.

1. Panicle brown. PET. *conc. n.* 118. brown
2. Panicle green. *lb.* 119. green

Ditches and marſhes frequent. P. July.

AGRO'STIS *pu'mila*. Panicle awnleſs, pointing one way. Straws upright; in bundles.— *dwarf*

Lightf. ii. *frontiſpiece.*

Roots numerous. *Straws* ſmooth; 2 inches high, leafy. *Leaves* like thoſe from the roots, a little turned in at the edges: the ſheaths ſcored. Panicle greatly expanded: moſtly pointing one way. *Flowers* coloured, awnleſs, taper-pointed. *Seeds* rather large. It grows promiſcuouſly with the *A. ſtolonifera*, but differs from that in being only half as large, in its panicle being leſs upright and pointing more in one direction: it grows likewiſe more matted together. *Little fruit-ſtalks* bent different ways, but not waved. LINN.

Straws ſeveral from 1 root, from 1½ to 3 inches high. *Leaves* from ½ to 1 line broad. *Flowers* generally purpliſh brown. *Empal.* keel rough. SCHEUCH. ST. *Straws* upright, ſcarcely bowed at the baſe. *Leaves* downwards rough. *Flowers* bellying, ſomewhat more than ½ line long. POLLICH. ST. *Straw* ſometimes only 1 inch high. *Empal. valves* from 2-3rds to ¾ line long, oblong-ſpear-ſhaped, pointed, the outer juſt perceptibly longer than the inner. *Bloſs. valves* 2, the *outer valve* ½ line long, ſometimes awned, and when this is the caſe generally all the flowers are awned. *Awn* from below the middle, extending beyond the point of the valve, towards the end ſlightly bowed aſide. *Seed-bud* in all the ſpecimens examined diſeaſed, as large as the bloſſom, and full of a chocolate coloured powder. ST.

A. polymorpha pumila. HUDS.

[Yarmouth Denes. Mr. Woodward.] P.

AGRO'STIS *min'ima*. Panicle thread-ſhaped; without awns. LINN. or rather bunch ſpike-like. ST. *ſmall*

H. ox.

H. ox. viii. 2. *row.* 3. 10.—*C. B. th.* 26.—*J. B.* ii. 465. 4.—*Bunch. Scheuch.* 1. 7. *I.* (*H. ox.* viii. 5. *row.* 3. 16, *is a different plant.*)

Straw ſlender, and very ſhort. It flowers in the ſpring. LINN.

Straw thread-ſhaped, often twiſted as the awn of the *avena*. *Empal. valves* lopped at the end. *Bloſs.* a ſmall flock-like ſubſtance, hairy, and ſeparable into ſeveral bundles of fine white threads; much ſhorter than the empalement. ST.

Wales. Diſcovered by Stillingfleet. A. July.

87. A'IRA. Hairgraſs.

Pl. II. fig. 15.

EMPAL. *Huſk* 2 valves, containing 2 florets. *Valves* betwixt egg and ſpear-ſhaped, equal, ſharp.

BLOSS. 2 valves, reſembling thoſe of the empalement. No rudiment of a flower betwixt the florets.

CHIVES. *Threads* three; hair-like; as long as the bloſſom. *Tips* oblong; forked at each end.

POINT. *Seed-bud* egg-ſhaped. *Shafts* 2; briſtly; expanding. *Summits* downy.

S. VESS. None. The bloſſom incloſes and adheres to the ſeed.

Seed. Nearly egg-ſhaped; covered.

ESS. CHAR. *Empal* 2 *valves, containing* 2 *florets; without the rudiment of a third between them.*

OBS. The number of florets not conſtant. REICH.

This is an artificial genus; thoſe without awns have the ſtructure of POA, and thoſe with awns that of AVENA. ST.

Chermes graminis is founded on the different ſpecies. LINN.

* *Without Awns.*

water A'IRA *aquat'ica.* Panicle expanding. Florets without awns, ſmooth, longer than the empalement. Leaves flat.—

Curt. n. 10. *faſc.* i.—*Vaill.* 17. 7. *diminiſhed. Leaves too pointed.*—*Floret, Mont.* 60.—(*Fl. dan.* 381. *not the plant, or very ill done.*)

Perhaps merely a var. of a *Poa*. LINN.

Empalement ſometimes containing 3 bloſſoms. *Leaves* blunt. ST. *Straw* with two joints. SCOP.

β *Diſtans.* HUDS.

Poa diſtans, which ſee.

In

In dry ſituations the *empal.* ſometimes contain 5 florets, the florets very remote. SCHREB. manyflowered

Banks of rivers. P. June. July.

It has a ſweet taſte. Cows are very fond of it. Horſes and Sheep eat it.

** *With Awns.*

A'IRA *cæſpito'ſa.* Leaves flat. Panicle expanding. Petals woolly and awned at the baſe. Awn ſtraight, ſhort.— *turfy*

H. ox viii. 5. *row.* 3. 17. *Leaves well done. Panicle unexpanded. (C. B's. deſcr. of the A. cæſp. tranſcribed.)—H. ox. ib. row.* 2. 1. *Panicle half expanded. Leaves flaccid inſtead of ſtiff. (Deſcr. a new one of the A. cæſp.)—Ger.* 5. 1. *repr. in C. B. th.* 34. 2. *(his deſcr. that of the agroſt. ſpicav.) and cop. by Park.* 1158. 2. *Ger. em.* 5. 1. *Panicle expanded; its habit tolerably expreſſed. Leaves as the 2nd ſyn. of the H. ox. Ger.* 5. 2. *repr. in C. B. th.* 35. *(deſcr. that of the aira cæſp.) cop. by Park.* 1158. 3.—*Dod.* 561. 1. *repr. in Ger. em.* 5. 2. *cop. by J. B.* ii. 461. 3. *are the plant before it comes into flower, when as Lightf. juſtly obſerves the branches of the panicle lean all one way. Crowded branches of the panicle repreſented as little ſpikes.—Fl. dan.* 240. *the ſeparate panicle, as well as the whole plant ſo diminiſhed that the reſemblance is quite loſt, though the magnified florets and ſection of the leaf ſhew it to be the plant.—Branch of the panicle, &c. Leers* 4. 8. *Scheuch.* 5. 2. *and* 3.

Awns ſtraight, MŒNCH, LEERS, ST. not extending beyond the bloſſom, MŒNCH.—juſt longer, LEERS.—generally ſhorter, ST. *Lower floret* bare at the baſe; the *upper* hairy at the baſe, on a fruit-ſtalk, which lengthening out raiſes the floret above the point of the empalement. In moiſt meadows it ſometimes produces 3 and 4 florets in an empalement. LEERS. *Empal. upper valve* ſomewhat longer and broader. Mr. HOLLEFEAR. *Panicle* large, of a beautiful purple ſilky appearance. Mr. DICKENSON. Both *florets* hairy at the baſe. *Fruit-ſtalk* a ſecond proceeding from the baſe of the upper floret; both hairy, and when the plant is in bloſſom half as long as the floret.—In ſtructure it comes neareſt to the *agroſtis vinealis.* ST.

—— *vivip'ara.* Panicle viviparous. LIGHTF. *p.* 1082. viviparous

Highland mountains. Oct.

Moiſt meadows and woods. P. June, Aug.

It is very apt to grow in tufts and occaſion irregularities in the ſurface of meadows.

Cows, Goats, and Swine eat it. Horſes are not fond of it.

A'IRA.

heath A'IRA *flexuo'ſa*. Leaves like briſtles. Straws almoſt naked. Panicles diverging. Fruit-ſtalks zigzag. LINN. Panicle expanding. Florets hairy at the baſe; awned. Awn twiſted, longer than the bloſs. HUDS.

Schreb. 30.—*Fl. dan.* 157.—*Scheuch. pr.* 6. 1.—*H. ox.* viii. 7. *row* 3. 9.—*Branch of the panicle, &c. Leers* 5. 1.—*Floret, Mont.* 74. *bad. (J. B.* ii. 509. 2. *not the plant.)*

Florets with a twiſted awn as long as the bloſs. fixed to the outer ſide of the baſe of the petal. LINN. Flowers browniſh purple or greeniſh. HUDS. *Upper floret* on a very ſhort fruit-ſtalk; both hairy at the baſe. *Awn* from above the baſe, twiſted, bent aſide, ſomewhat longer than the bloſſom. LEERS. ST.

Heaths, woods, and barren paſtures. [Rocky Moors in the North. Mr. WOODWARD.] P. July. Aug.

Horſes, Cows, and Sheep eat it.

mountain A'IRA *monta'na*. Leaves like briſtles. Panicle ſlender and compact. Florets hairy and awned at the baſe. Awn twiſted and longer. LINN. Panicle upright, pointing nearly one way. HUDS. *(Mr. H. ſhould have added, fruit-ſtalks zigzag. See his deſcription.* ST.)

Scheuch. (J. Jac.) itin. p. 455. *f.* 15. *cop. in Scheuch. pr.* 4. 4.—*Stiling.* 4.——*Branch of the panicle, &c. Leers* 5. 2.——*Florets, Scheuch.* 4. 16. *A. B. C. (Floret, Mont.* 75. *not awned.)*

Differs from the *flexuoſa*, with which it exactly agrees in habit, only in the bloſſom, being hairy at the baſe. GERARD. *prov.* but the *flexuoſa* is ſo alſo. See SCHEUCH. LEERS. SCHREB. and HUDS. (ST.) My ſpecimens are undoubtedly only varieties of the *flexuoſa*. LEERS and ST. *Root-leaves* longer, upright. *Straws* incorporated, purple. *Panicle* more elegantly and fully coloured. *Fruit-ſtalks* ſtraight, not undulated. *Flowers* more numerous. *Empalements* while in flower more widely expanded. *Florets* more hairy at the baſe. *Awns* longer. LEERS. The *flexuoſa* is the ſame plant, only more fully grown. HALL and WIGGERS. *Root* perennial, fibrous. *Straws* many, from 6 to 18 inches high; rather upright, cylindrical, ſmooth; with 2 or 3 joints. *Root-leaves* numerous in bundles, ſtiff, briſtly, naked, ſea-green. *Stem-leaves* 2 or 3; ſtiff, expanding, on leaf-ſtalks, edges turned in ſo that they appear like briſtles. *Leaf-ſtalk* very long, cylindrical, ſheathing, ſcored, naked. *Props* within the leaves; upright, ſharp, membranaceous, permanent. *Panicle* ſlender, upright, but 1 rowed; compact, branched: its branches zigzag, rough. *Little ſpikes* of 2 florets, one ſitting, the other on a fruit-ſtalk. *Receptacle* hairy. *Empal. Huſk* 2 equal valves, oblong, rather ſharp, concave, naked, purpliſh; longer than the bloſſom. *Bloſs.* 2 valves,

2 valves, oblong, equal, concave, ſharp, ſmooth. *Outer valve* awned at the baſe. *Awns* twice as long as the bloſſom, bent at its middle. *Chives.* Threads 3, hair-like, ſhort. *Tips* halberd-ſhaped, purple. *Summits* woolly. HUDS.

High heaths and ſandy paſtures. [Salt Marſhes, Norf. Mr. WOODWARD.] P. July. Aug.

Sheep are extremely fond of it.

β *Setacea.* Awns twice as long as the florets. HUDS. ſmall-leaved

[Stratton Heath, Norfolk. Mr. CROWE.]

A'IRA *caneſcens.* Leaves briſtle-ſhaped. Florets as ſhort again as the empalement, the uppermoſt on a Fruit-ſtalk. Awns club-ſhaped at the end, and about the middle encircled with ſmall teeth. ST.* Leaves briſtle-ſhaped. Panicle cloſe, upright. Florets awned, as ſhort again as the empalement. HUDS. Leaves briſtle-ſhaped, the uppermoſt ſheath-like, incloſing the panicle below. LINN. *grey*

Lob. adv. alt. 466. 1. *cop. by J. B.* ii. 463. 2.

Awns encompaſſed with little teeth in the middle part, brown and thick below, but whitiſh, ſlender, and ſomewhat club-ſhaped above. After flowering the panicle riſes higher out of the ſheath; before flowering it reſembles a ſpike. This is paler than moſt other graſſes, and from that circumſtance may be diſtinguiſhed at firſt ſight. LINN. *Root* fibrous. *Straws* ſeveral, ½ a foot high, ſlanting, ſmooth. *Leaves* rough; *root-leaves* bundled, ſtiff, ſea-green; *ſtem-leaves* upright, pointed, rolled in. *Leaf-ſtalks* rough, cylindrical, ſheathing, almoſt as long as the joint; the uppermoſt ſheath-like, incloſing the panicle below. *Panicle* oblong. *Empal.* valves equal, oblong, pointed, keeled, keels rough. *Bloſs.* valves unequal, oblong, hollow, rather pointed, ſmooth; *outer* one awned. *Awn* from the middle as long as the empalement. HUDS. *Florets* hairy at the baſe. *Awn* twiſted below. ST. Cows and Goats eat it. When young it affords a good paſture for Sheep. GLEDITCH.

Sandy ſhores. [Yarmouth Denis. Mr. WOODWARD.] P. July. Aug.

A'IRA *præcox.* Leaves briſtle-ſhaped. Sheaths angular. Flowers in a ſpike-like panicle. Florets awned at the baſe. LINN. Panicle contracted. WIGGERS. Awn from between the baſe and the middle. Florets ſitting. ST. *Curt.* *early*

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* Foliis ſetaceis; floſculis calyce duplo brevioribus, ſuperiore pedunculato; ariſtis ſuperne clavatis, medio denticulis cinctis. ST.

Curt. iii. *n.* 25.—*Fl. dan.* 383.—*Pluk.* 33. 9, *middle panicle the only one well done.*—*Ray* 22. 2, *awns too ſhort.*—*Floret, Mont.* 80. *bad.*

Nearly allied to the *A. caneſcens*, but ſmaller, being one of the ſmalleſt of the graſſes.

Barren ſands, common. A. May. June.

ſilver

A'IRA *caryophylle'a*. Leaves briſtle-ſhaped. Panicle ſtraddling. Flowers diſtant, awned. LINN. Panicle 3-forked. Flowers diverging. HUDS. Florets ſitting. ST.

Fl. dan. 382.—*H. ox.* viii. 5. *row* 3. 11.—*Stiling.* 5.—*Scheuch. iter* ii. 18. 2.--*Barr.* 4. 1.—*Branch of the panicle, Scheuch.* 4. 15.—*Floret, Mont.* 81. *bad.* (*C. B. pr. not the plant. Leaves broad, panicle too large in proportion to the ſtraw.*—*Leers* 7. 5. *one of the florets on a fruit-ſtalk, not our plant at leaſt, or that of Scheuch. though that of Royen, alſo referred to by* LINN.)

Awns from above the baſe, and a little below the middle of the outer valve of the bloſs. *Florets* both ſitting. SCHEUCH. POLLICH. and ST. Panicle at firſt contracted, afterwards diverging, and at length ſtraddling. POLLICH. ST.

2. Sometimes only one of the florets awned. SCHEUCH.

Gram. paniculat. purpuro, &c. SCHEUCH. 233. 1. 4. *f.* 23, (*not* 22.)

Sandy paſtures, frequent. [On the beach at Loweſtoff, Suffolk, and elſewhere. Mr. WOODWARD.] A. July.

88. MEL'ICA. Melic.

Pl. II. fig. 16.

EMPAL. *Huſk* 2 valves, containing 1 or 2 florets. *Valves* egg-ſhaped, concave; nearly equal.

BLOSS. Two valves. *Valves* egg-ſhaped; without awns; one concave, the other flat. Betwixt the 2 florets there is a ſmall ſubſtance.

CHIVES. *Threads* 3; hairlike as long as the bloſſom. *Tips* oblong, forked at each end.

POINT. *Seedbud* betwixt egg and turban-ſhaped. *Shafts* 2; like briſtles; expanding. *Summits* oblong; woolly.

S. VESS. None, the bloſſom incloſes the ſeed until it ripnes.

SEED. Single, egg-ſhaped.

ESS. CHAR. *Bloſs.* 2 *valves, containing* (1 *or*) 2 *florets, with an imperfect floret betwixt them.*

OBS. The *rudiment* of a third floret ſtanding upon a little fruit-ſtalk betwixt the other two florets, gives the eſſential character of this

this genus. It conſiſts of two rudiments, or florets; lopped; alternate. The huſks rolled ſpirally inwards and pellucid. LINN.—When there is only one *floret* in each empal. this *rudiment* is found betwixt the bloſſom and the inner valve of the empal. WITH.

MEL'ICA *uniflo'ra*. Panicle with few flowers. Empalements containing 2 florets, 1 with chives and pointals, the other without either. RETZIUS *obſ.* i. *n.* 9. ST.—Valves of the empalement pointed. ST.—Petals not fringed. Panicle nodding; branches pointing one way. Empalement containing 1 floret. HUDS. *wood*

H. ox. viii. 7. 49.—Mr. WOODWARD. ST.—*Lob. adv. alt.* 465. 1. *cop. in J. B.* ii. 434, *and Park* 1151. 3.

Straw thread-like, (ſlender ST.) 3, (4) ſquare, ſmooth. *Sheaths of the leaves* hairy at the brim. *Panicle*, lower fruit-ſtalks 2, (ſometimes 1, or 3,) one of them ſhorter, generally bearing 1 flower; the upper ones ſingle, (or 2 together. ST.) *Empal. outer (inner) valve* larger, egg-ſhaped, (oblong) hollow, (with 5 ribs;) the *inner (outer)* ſpear-ſhaped, with 3 ribs. *Floret with chives and pointals* ſitting; *outer valve* embracing the inner; edges of the *inner* membranaceous, reflected, (folded inwards); the *barren one* of 2 valves. Often grows along with the *nutans*, but truly diſtinct. (In this part of England we have not the *nutans.*) In more than a thouſand ſpecimens there was not 1 panicle truly ſimple, or a ſingle empal. that contained 2 perfect florets, and being cultivated in a garden for 3 years, it remained unchanged. RETZ. and ST.—*Sheaths of the leaves* pubeſcent, with the points of the hairs directed downwards, but not rough to the hand paſſed upwards. *Panicle* ſlender, with a gentle ſlanting curvature. *Fruit-ſtalks* ſtraight. *Flowers* upright. *Bloſs.* griſtly, of a pale greeniſh tinge, about the length of the inner valve of the empalement; *valves* oblong, blunt; the *outer* ſmooth, not gloſſy, with 7 obſolete ribs at unequal diſtances; the *inner* nicked, and pubeſcent at the end, with 2 ſtiff ribs. *Little ſpike of neutral florets*, inverſely egg-ſhaped, between the bloſſom and the inner valve of the empalement, together with its fruit-ſtalk as long as the bloſſom, compoſed of the rudiments of 3 and even 4 florets, each conſiſting of 2 membranaceous valves ſimilar in ſhape to thoſe of the perfect floret; each ſupported on a fruit-ſtalk of its own, riſing from the baſe of the inner valve of the laſt rudiment; and each as ſmall again as the floret below it. No *chives* or *pointals* in any of them. Conjectured it to be a var. of the *nutans*, and called it *M. nutans uniflora*. Deſcribed by *Ray ſyn. p.* 403. *n.* 6. and poſſibly by *Scheuch. p.* 173. *n.* 2.—Its bellying valves, the griſtly texture of its bloſſom, its ribbed empalement, and its habit, combine to point

out an affinity between our 2 ſpecies and the *Milium effuſum*. St. *May* 18. 74. *and Aug.* 19. 76.—*Empal. valves* brown, with a tinge of purple; *outer* narrower, egg-ſpear-ſhaped, juſt ſhorter than the bloſſom; *inner* oblong, generally longer than the bloſſom. *Bloſs. valves* oblong, cartilaginous; *outer* ſmooth, marked on the outſide with 6 ribs, the middle ones but juſt perceptible; *inner* nearly as long as the outer; lateral ribs pubeſcent.—*Habit* very different from that of the *nutans*. St.—*Empal. outer valve* a ſize ſmaller than the *inner* valve. *Panicle* after flowering nearly upright. With.

Melica nutans. Huds.

Woods and hedges, not uncommon. P. May to Aug. St. W.

mountain MEL'ICA *nu'tans*. Petals not fringed. Panicle nodding ſimple. Linn.—Valves of the empalement blunt. St.—Panicle cloſe, upright, nearly ſimple. Flowers pendant, pointing one way. Huds.

Schreb. 6. 1. *(2 in the printed text.)—C. B. pr.* 20. *repr. in th.* 155. *and cop. by Park.* 1151. 5.—*Barr.* 95. 2.—96. 2.—*J. B.* ii. 434. 1.—*Panicle, &c. Leers*, 3. 4.—*Scheuch.* 3. 16. *D. E. F. (Barr.* 95. 1. *is deſcribed to have ruſh-like leaves, and* 96. 1. *is the Gram, Scheuch. p.* 173. *n.* 3.)

Flowers in a bunch, Cluſ. ii. 219. *repr. in Ger. em.* 20. 2.?—*Ger.* 18. 2, *repr. in C. B.* 154, *and cop. in J. B.* ii. 492. 1.

Flowers pendant. Linn. *lapp. Fruit-ſtalks* towards the baſe of the bloſſom bowed back. Scheuch.—*Empal. valves* ſhorter than the bloſſom, dirty purple, margins membranaceous, whitiſh; *outer* egg-oblong, ſhorter; *inner* oval. *Bloſs. valves* oblong, between membranaceous and cartilaginous; *outer* ſcored, whitiſh, ſometimes tinged with purple; *inner* a good deal ſhorter, pubeſcent. St.

Melica montana. Huds.

Mountainous woods in Yorkſh. Weſtmorel. & Cumberl. [Helkſwood, by Ingleton, Yorkſh. Mr. Woodward.] P. June. July.

In the Iſle of Raſa they make this graſs into ropes for fiſhing nets, which are remarkable for laſting long without rotting. *Pennant's Tour*. 1774. *p.* 297.—Cows, Horſes, and Goats eat it.

purple MEL'ICA *cæru'lea*. Panicle compact. Flowers cylindrical.—

Fl. dan. 239.—*H. ox.* viii. 5. *row.* 3. 22.—*Panicle, &c. Leers*, 4. 7.

Root bulbous. *Leaves* flat. *Straw* for a great length without knots. *Florets* awl-ſhaped, rolled in at the edges, ſometimes 3, and in very rich ſoil, 4 in an empalement. A *pedicle* knobbed at the end riſes from betwixt the florets. *Tips* purpliſh blue. *Pointals* purple. Linn.—*Straw* with only 1 knot which is cloſe to the root. *Leaf-*

ſtalks

ſtalks ſheathing, on the inſide where it joins the leaf, inſtead of a membrane, beſet with a tranſverſe row of cloſe ſhort hairs. SCHEUCH. ST.—*Empal. valves* ſomewhat keeled; the *outer* rather ſhorter. *Firſt floret* ſitting, twice as long as the empalement. *Spike-ſtalks, joints* half as long as the floret that is fixed to its point, terminated by an imperfect floret half as long as the next below it. *Bloſs.* texture the ſame with that of the empalement; *outer valve* ſomewhat keeled, marked within with 5 ribs, egg-ſhaped, oblong, blunt; *inner* with a prominent rib on each ſide, edges folded in. ST.

Aira cærulea. Sp. pl. HUDS. LEERS. SCOP.—*Arundo.* HALL. But in my ſpecimens of both varieties the bloſſoms are quite bare. ST.

Boggy barren meadows, and paſtures. P. July. Aug.

Horſes, Sheep, and Goats eat it. *Chermes graminis* is found upon it. LINN.

SESLE'RIA. (SCOP. ARDUIN. ADANSON. HALL.)—Moorgraſs.

EMPAL. *Fence* 2 leaves at the bottom of the ſpike or bunch. *Huſk* 2 valves, containing 1, 2, or 3 florets; *valves* egg-ſhaped, taper pointed, nearly equal.

BLOSS. *Valves* 2, oblong, compreſſed, about the length of the empalement; the *outer* concave, embracing the inner, toothed at the end, the keel running out into a ſhort awn; *inner* flat, with the edges folded in, cloven at the end.

CHIVES. *Threads* 3, hair-like, longer than the bloſſom. *Tips* oblong.

POINT. Of the length of the threads. *Seed-bud* inverſely egg-ſhaped; hairy. *Shafts* 2, briſtle-ſhaped, upright. *Summits* pubeſcent.

S. VESS. The bloſſom incloſing the ſeed.

SEED. One, hairy. ST.

ESS. CHAR. *Fence of 2 leaves. Empalement containing 2 or 3 florets. Bloſſom toothed at the end.* ST.

OBS. In the poſition of the fence, and in its habit it approaches to the tribe of *Graminifolia.** The above deſcriptions were made from a collective view of the following: *Seſleria ſphærocephala.* Arduin. ſpec. ii. t. 7. Hall. ap. Scheuch. app. ii. n. 30. and

* The *Dactylis pungens* SCHREB. has a general fence of ſeveral leaves. ST.

blue. SESLE'RIA *cæru'lea.* Scop. Straw undivided. Spike ſomewhat cylindrical. Arduin. St.

C. B. pr. 21. 1, *repr. in th.* 158, *and cop. in Park.* 1152, 6, *well done.—Scheuch.* 2. 9. *A. B. florets and empalement indifferent. (J. B.* ii. 466: 2. *is a copy of* 476. 2, *the Phal. arund.* β.)

Straws oblique. *Leaves* betwixt ſea-green and bluiſh. *Spike* ſometimes white. Linn.—*Spike* from ½ to nearly 1 inch. Scheuch. St.—*Seeds* hairy. *Empal. valves* ending in awn-like points. Hall. St.-*Straws* ſurrounded at the baſe with a bundle of root-leaves incloſed in a whitiſh brown wrinkled ſkin, giving the appearance of a branched root; above bare of leaves. *Bunch* ſpike-like, egg-oblong. *Florets* on ſhort fruit-ſtalks, purpliſh livid, or browniſh white. *Fence-leaves* roundiſh, embracing the ſpike-ſtalk, gnawed, membranaceous, ſhorter, but thrice as wide as the empalement; the lower one at the baſe of the bunch, the other a little higher up at the baſe of the florets of the oppoſite ſide. *Empal.* containing moſtly 2 florets, ſometimes juſt longer, and ſometimes juſt ſhorter than the florets, edges and keel bearded. *Bloſs. valves* equal in length, edges and keel bearded; *outer* with 5 ribs, cloven at the end into 4 teeth, ending in awn-like points, the two middle ones ſhorter, with the keel running out from between them into a ſhort awn twice as long as the teeth. *Threads* white. *Tips* whitiſh, cloven at the baſe. *Seed-bud* reddiſh brown. *Shafts* white. St.

Cynoſurus cæruleus. Linn.—*Aira varia.* Jacq. *enum.* who remarks that Linn. has improperly placed it in the genus *Cynoſurus*, it having no affinity to that family. St.

Mountainous paſtures in the North; ſometimes in marſhes. [Crevices of the Lime Rocks at the foot of Ingleborough. St.]

P. May. June.

Horſes, Sheep, and Goats eat it. Swine refuſe it.

89. PO'A.

89. PO'A. Meadowgraſs. *(Gerard.)*

Pl. II. fig. 18.

EMPAL. *Huſk* 2 valves without awns; containing ſeveral florets pointing from two oppoſite lines and collected into an oblong egg-ſhaped ſpike. *Valves* egg-ſhaped, tapering.

BLOSS. 2 valves. The *valves* egg-ſhaped, tapering, concave, compreſſed; ſomewhat longer than the empalement; ſkinny at the edges.

CHIVES. *Threads* 3; hair-like. *Tips* forked at each end.

POINT. *Seed-bud* roundiſh. *Shafts* 2; bent back; woolly. *Summits* like the ſhafts.

S. VESS. The bloſs. adheres to the ſeed without opening.

SEED. Single; oblong, compreſſed, tapering at each end and covered by the bloſſom.

ESS. CHAR. *Empal.* 2 *valves, containing ſeveral florets. Little ſpikes egg-ſhaped; valves ſomewhat pointed; ſkinny at the edges.*

PO'A *aquat'ica.* Panicle ſpreading. Little ſpikes ſtrap-ſhaped, containing 6 florets. LINN.—Panicle upright, branched. Little ſpikes betwixt egg and ſtrap-ſhaped. Straw upright. HUDS. *Reed*

H. ox. viii. 6. 25.—*Ger.* 7. 2, *repr. in C. B.* 40.—*Ger.* 6. 2, *repr. in C. B. th.* 38.—*Ger. em.* 6. 1.—*Branch of the panicle, Leers* 5. 5. *Scheuch.* 4. 1.—*A little ſpike, Mont.* 38.

Empal. containing from 5 to 10 florets. *Straw* 6 feet high. LINN.—*Straw* from 4 to 6 feet high; upright, 2 edged, ſmooth. *Leaves* ſword-ſhaped, ſharp, ſtraight, keeled; rough at the edges and along the keel. *Leaf-ſtalk* a ſheath, cylindrical, ſcored, ſmooth. *Props* membranaceous, blunt, ſolitary; betwixt the leaf and the ſtraw. Florets from 5 to 10. HUDS.—*Panicle* purpliſh. Leaves broad, channelled. WITH.

Marſhes and banks of rivers. P. July. Aug.

It is an extremely uſeful graſs to ſow upon the banks of rivers or brooks. Horſes, Cows, and Sheep are exceedingly fond of it.

PO'A *trivia'lis.* Panicle ſomewhat ſpreading. Florets woolly at the baſe, 3 in each little ſpike. Straw cylindrical, upright. LINN.—Panicle ſpreading. Little ſpikes, with generally 3 florets. Straw upright, rough. Leaf-ſcales taper pointed. CURT.—Panicle branched, ſpread- *rough-ſtalked*

ing. Little ſpikes egg-ſhaped, crowded together. Florets woolly at the baſe. Leaves rough, ſharp. Straw nearly upright. HUDS.

Curt. ii. 15.—*Park.* 1156. 4, *uppermoſt on the right hand.*—*C. B.* 30. *(Dod.* 560. 2, *repr. in Ger.* 2. 2, *does not ſeem to be the plant.)*

Straws incorporated, upright, ſtraight. *Leaves* keel ſmooth. *Leaf-ſcales* oblong, ſpear-ſhaped. *Florets* coloured at the point, yellower than in the other ſpecies. LINN.—*Root* fibrous. *Straw* weak, creeping at the baſe, ſcored. *Florets* 2, 3, and ſometimes 4. SCHEUCH.—Mr. Curtis has given the ſame references to Ray, Ger. and Park. to this and the *P. prat.* ST.—*Panicle* open; 2, 3, or 4 fruit-ſtalks riſing from the ſame point. *Florets* 3 or 4 in each empalement. *Tips* reddiſh purple. *Straw*, fruit-ſtalks, and little ſpikes, roughiſh. *Leaves* rough; the top of the uppermoſt leaf reaches to the bottom of the panicle. WITH.—Panicle ſpreading. Little ſpikes with generally 5 florets. Straw upright, ſmooth. Leaf-ſcales blunt. CURT.

Bird-graſs, by which name it is known to the ſeedſmen. *Fowl-graſs*, *Fowl Meadow-graſs*. *Fold Meadow-graſs*.*

Moiſt meadows and ſides of ditches. P. June. July.

Begins to flower the firſt week in June, and generally continuing during the whole of the ſummer. CURT.

marſh β. *paluſtris.*—Panicle ſpreading. Little ſpikes with generally 3 florets. Leaves rough underneath. LINN.

(H. ox.

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* The graſs known by the above names to the London ſeedſmen and experimental farmer, is generally believed to be the *Poa trivialis*, as I am informed by that excellent botaniſt the author of the Flora londinenſis. It was brought from America by Mr. Wych, of the Society of Arts, in 1763, and highly recommended in the *Mus. ruſt.* iv. *p.* 44, as affording a remarkably fine ſweet ſcented hay. The facility with which it may be cultivated, by means of the numerous ſuckers which it throws out from the lower joints, and the great rapidity with which theſe again propagate themſelves, induce us to hope that it may become permanently naturalized, and expel at length from our meadows and paſtures that enormous heap of uſeleſs weeds with which they are at preſent unprofitably encumbered.—Not having had an opportunity of examining it, I ſhall ſubjoin the following account of it from Haller. ST.

fowl *Poa ſtolonifera.* Little ſpikes containing 3 florets. Florets ſomewhat woolly at the baſe. HALLER.

Mus. ruſt. v. 1. 4.

Approaches very near to the *P. anguſtif.* but differs in its *Flowers* being more diſtinct, and its *Florets* being woolly at the baſe. *Straw* knee-jointed, throwing out leaves from each knot; upright above, 2 or 3 feet high. *Leaves* ſmooth, leſs than a line in width. *Panicle* contracted. *Flowers* crowded, tapering to a point, green at the end, of a purpliſh cheſnut. HALL. *app. to Scheuch. p.* 93. *n.* 48.

(H. ox. iii. 6. 27, *from the florets figured on the ſide, as well as its habit, appears to be rather an Agroſtis.—Fl. dan.* 750, *edges of the bloſſom fringed, and the* 2 *upper florets on long fruit-ſtalks.)*

Empal. valves as long as the bloſſom, rough on the back. *Florets* 2 or 3 in each empalement; one floret ſitting; the other on ſhort fruit-ſtalks, which are very rough. *Upper leaf* ſheathing the ſtraw and nearly as long as the panicle. If the third floret was not ſometimes found, the ſtudent would be led to ſearch for it in the genus Aira. WITH.—*Florets* ſometimes only 3. SCHEUCH.—*Poa trivialis paluſtris.* HUDS. *(Not P. paluſtris Gmel. tub. for his hath ſmooth leaves.)*

Watery places amongſt reeds and the Poa aquatica. June.

γ *ſetacea.*—*Panicle* ſpreading. Little ſpikes with 3 florets; pubeſcent. Root-leaves briſtle-ſhaped. *Poa trivialis ſetacea.* HUDS. *hair-leaved*

POA *anguſtifolia.* Panicle ſpreading. Florets 4 in each little ſpike; woolly. Straw cylindrical, upright. LINN.—Panicle nearly upright. Little ſpikes on fruit-ſtalks; egg-ſhaped. Fruit-ſtalks ſtraddling. Florets hairy at the baſe. Leaves pointed HUDS. *narrowleaved*

H. ox. viii. 5. 19.—*Panicle, &c. Leers* 6. 3.——*A branch of it, Scheuch* 3. 17. *B.*

Florets when ripe often woolly, and when ſeparated from the empalement adhering together. LINN.

VAR. β. *Florets* 2 and often 3. SCHEUCH. —— *Poa anguſtifolia nemoralis.* HUDS.—*Poa nemoralis,* LINN. which ſee.

Woods and hedges. [In Hertfordſhire Mr. WOODWARD.]

P. June. July.

Horſes, Cows, Sheep, Goats, and Swine eat it.

POA *pratenſis.* Panicle ſpreading. Little ſpikes ſmooth; with 5 florets. Straw cylindrical, upright. LINN. —Panicle ſpreading. Little ſpikes with generally 5 florets. Straw upright, ſmooth. Leaf-ſcales blunt. CURT.—Panicle branched. Little ſpikes egg-ſhaped, crowded. Florets woolly at the baſe. Leaves blunt. Straw not quite upright, ſending out ſuckers. HUDS. *ſmooth ſtalked*

Curt ii. 14.—*C. B.* 28.—*H. ox.* viii. 5. 18.—*Stilling.* 6.—*Panicle, &c. Leers* 6. 4.—*Branch of it, Scheuch.* 3. 17. *A. (J. B.* ii. 461. 2, *ſeems rather P. nemoralis, and Dod.* 560. 1, *and its copies to be P. annua.)*

Florets generally 2, and ſometimes 3. SCHEUCH.—*Root* creeping. *Straw* firm, upright, ſcarce perceptibly ſcored. *Florets* ſometimes only two. CURT.

On walls, dry banks, and not unfrequently in meadows, and begins to flower about the 3d week in May. CURT. — June. July. HUDS.

alpine — β. *Poa pratensis alpina.* HUDS.—Panicle spreading, very much branched. Little spikes heart-shaped, with 6 florets. LINN. *Scheuch. pr.* 3. 4.

Florets from 2 to 5. SCHEUCH.—*Poa alpina.* LINN. Mountains.

viviparous — γ *Poa pratensis vivipara.* HUDS.—*Poa alpina vivipara.* LINN. *Fl. dan.* 807.—*Scheuch. it.* i. 4. 2.—*Scheuch* 4. 14.

On Snowdon. P. June. July.

Horses, Cows, Sheep, and Swine eat it.—Goats are not fond of it.

annual — POA *annua.* Panicle spreading horizontally. Little spikes blunt. Straw oblique, compressed. LINN.—Panicle expanding; pointing one way; branches in pairs. Straw oblique, two edged. HUDS.—Branches of the panicle sometimes horizontal, sometimes slanting. CURT.—Florets without wool at the base. ST.

Curt. 1. 2.—*Stilling f.* 7.—*H. ox.* viii. 5. 21.—*Mus. ruſt.* iv. 2. 8.—*Dod.* 560. 1, *repr. in Lob. obs.* 9. 1, *Ger. em.* 2. 1; *and cop. by Park.* 1156. 4, *the uppermoſt on the left hand.*—*C. B. th.* 31, *cop. in J. B.* ii. 465. 1.—*Ger. em.* 3. 2. *cop. in Park.* 1156. 4, *the lowermoſt on the left hand, and J. B. ib.* 2.*—*Panicle, &c. Leers* 6. 1.—*Branch of the panicle, Scheuch.* 3. 17. *E.*—*Park.* 1156, *the lowermoſt on the right hand.*

This is diſtinguiſhed from the *P. trivialis* by its general habit, its ſpreading panicle, its compreſſed reclining ſtraws, and by its greater ſoftneſs and delicacy; from the *P. pratenſis* and *anguſtifolia* by the branches proceeding from the ſtalk in pairs, by its ſize, &c. POLLICH.—*Florets* green, ſometimes reddiſh: 4 or 5 in each empal. SCOP.—*Bloſs. keel* between hairy and pubeſcent. ST.—*Branches* of the *panicle* in the middle often in threes, at the top ſolitary. CURT.—*Little ſpikes* larger than thoſe of the *P. pratenſis.* Mr. DICKENSON.

Suffolk graſs.

Paſtures, paths, gravel walks, and the borders of fields. A. April.—Sept.

Horſes, Cows, Sheep, Goats, and Swine eat it.

ſea — POA *maritima.* Panicle compact, branched, pointing one way. Branches in pairs. Little ſpikes oblong. Florets blunt. Leaves ſharp; edges rolled in. Straw cylindrical, ſlanting. HUDS.—(In my ſpecimens, branches 5 from a knot. ST.)

(Fl. dan. 251, is referred to by Lightf. and Roth, but Hudſon omits it, neither does it accord with my ſpecimens.—C. B. th. 130, ſeems the ſame plant with Fl. dan. 251, tending towards decay.)

Root perennial, creeping. *Straw* from 6 to 12 inches high; ſmooth. *Leaves* on leaf-ſtalks, ſword-ſhaped, expanding, tapering to a point; bare. *Panicle* oblong, upright. Lower *panicle branches* ſometimes a little expanding. *Florets* from 3 to 7 or 8; bluntiſh, ſmooth. HUDS.—*Leaves* rolled in ſo as to reſemble ruſhes. *Panicle* purpliſh, but little ſpreading; compoſed of narrow, oblong ſpiculæ, not awned. RAY.—Very nearly related to *Feſtuca fluitans*. Perhaps the ſea water may occaſion the difference. LIGHTF. ST—The *panicle* when in flower bears ſome reſemblance to that of the *F. fluitans*, but I cannot by any means believe the ſea water to have effected ſuch changes; beſides it is different in habit and ſtructure, and belongs rather to the Poas. ROTH. *beytr. p.* 8.—But the *F. fluitans* has the ſtructure of *Poa*. Cultivation alone can aſcertain the point. ST.—*(Poa arenaria*, RETZ. *ſcand.* but he ſays, "Panicle ſomewhat "ſpreading, little ſpikes ſitting.") *(Gram. exile duriuſc. marit.* SCHEUCH. 272 *is a quite different plant.)* ST.

Sea coaſt, frequent. [Salt Marſhes, Norf. Mr. WOODWARD.]
P. June. July.

PO'A *rigida*. Panicle ſpear-ſhaped; ſomewhat branched; pointing one way. Branches alternate, pointing one way.— *hard*

Curt. ii. 24.—*Vaill.* 18. 4.—*H. ox.* viii. 2. 9.—*Barr.* 49.—*Ger.* 4. 3.—*C. B. th.* 32. 1, *cop. in Park.* 1157.—*Branch of the panicle, Scheuch.* 6, 2, *and* 3.—*Floret, Mont.* 11.

Straw very ſhort and ſtiff. *Panicle* ſpear-ſhaped, inflexible; doubly compound; its *branches* alternate. *Little ſpikes* alternate, on inflexible fruit-ſtalks, which are ſhorter than the ſpikes they ſupport; ſtrap-ſhaped, ſharp, about 8 florets in each. *Florets* ſharp and ſkinny at the point. *Empal.* keeled. LINN.—*Florets* from 3 to 9 in each little ſpike. HUDS.

Walls, roofs, ſandy and ſtony places, frequent. A. July.

PO'A *compreſsa*. Panicle compact; pointing one way. Straw oblique, compreſſed. LINN.—Panicle upright. Straw aſcending. HUDS. *creeping*

Fl. dan. 742.—*Vaill.* 18. 5.—*Panicle, &c. Leers* 5. 4, *branches of the panicle horizontally expanding, inſtead of crowded, as in the ſpecific character.*—*Little ſpikes, Mont.* 10.

Florets generally 6 in each empalement. LINN.—*Panicle* more or leſs ſcattered. *Little ſpikes* 2 to 4 lines long. SCHEUCH.—*Root* ſomewhat

what creeping. *Little ſpikes* almoſt ſitting, near together. *Florets* ſomewhat woolly at the baſe. LEERS. ST.——A very ſmall tuft of wool at the baſe of the *lowermoſt floret*, which may be drawn out to nearly the length of the floret, that of the upper florets ſcarcely more than a hair or two. ST.—*Little ſpikes* much larger than thoſe of the *Poa pratenſis*. Mr. DICKENSON.

Walls, houſe tops, and other very dry places. P. June. July.
Horſes, Cows, Sheep, and Goats eat it.

wood POA *nemora'lis*. Panicle taper. Little ſpikes ſharp pointed, rough, 2 florets in each. Straw bent inwards.—*Scheuch. pr.* 2. 2.—*Fl. dan.* 749.—*Scheuch. it.* ii. 18. 3.—(*J. B.* ii. 461. 2.)—*Panicle, &c. Leers* 5. 3.—*Little ſpike, Mont.* 12. *Florets* ſometimes 3. SCHEUCH.—from 2 to 5. Mr. HOLLEFEAR. *Poa anguſtifolia nemoralis*. HUDS.—A diſtinct ſpecies. Mr. WOODWARD.

Woods and ſhady places. [Plentiful in the North. Mr. WOODWARD.] A. June.

bulbous POA *bulbo'ſa*. Panicle ſomewhat expanding; pointing one way. Little ſpikes of 4 florets. LINN.—Little ſpikes egg-ſhaped. Florets ſmoothiſh; ſharp. Straw upright, bulbous at bottom. HUDS.

γ *Vaill.* 17. 8.

Panicle branched, the branches angular, roughiſh. *Little ſpikes* egg-ſhaped, ſharp; with 3, 4, or 5 florets, a little hairy at the baſe. HUDS. *Florets* not unfrequently 5. SCHEUCH.

viviparous β *Barr.* 703, 1 *and* 2.—*C. B. th.* 32. 2, *cop. in Park.* 1158. 1.—*Ger. em.* 3. 1.—*Pet.* ii. *gramital.* 4. 9 *and* 11.—*J. B.* ii. 464.—*Flowers, &c. Scheuch.* 4. 13. *A. B. C.*

Paſtures near Clapham, Surry. P. May. June.

looſe-flowered POA *diſtans*. Panicles with ſub-divided branches. Empal. with 5 flowers. Florets diſtant, blunt.—

Height the ſame with the generality of Poas. *Straws* aſcending, ſmooth. *Leaves* ſmooth. *Panicle* roughiſh. *Florets* ſometimes only 4, from the point to the middle white, ſo remote from each other that it might readily be taken for a ſpecies of *Agroſtis*, if the *Empal.* was not attended to, which at once diſtinguiſhes it. LINN.—Has the habit of Poa aquatica, but all the parts more delicate and ſmaller, though the little ſpikes are not ſhorter. JACQ. obſ. p. 42. *Root* fibrous. *Straws* ſeveral, ſlanting, or nearly upright, cylindrical, ſmooth. *Root-leaves* few, ſword-ſhaped, upright, blunt, bare. *Stem-leaves* on leaf-ſtalks, blunt, ſometimes rolled in, ſea-green. *Leaf-ſtalk* ſheathing, cylindrical, ſcored, ſmooth. *Leaf-ſcale* membrana-

branaceous, very ſhort, blunt. *Panicle* ſpreading and expanding, branches generally growing in fours. *Little ſpikes* ſtrap-ſhaped. *Florets* from 3 to 6 or 7; remote, blunt, as if lopped; ſometimes purpliſh; white at the edge. *Huſks* 2 unequal valves, very blunt. HUDS.—*Florets* when out of bloſſom ſtanding diſtinct from each other; at other times tiled, like other *Peas*; 1 line long; of an even ſurface, not ribbed. ST.*

Aira aquatica diſtans. HUDS.

Sandy places near Exmouth. About Northfleet in Kent, and in Yorkſhire and Lancaſhire. P. June. July.

POA *criſta'ta.* Panicle ſpike-like. Empal. ſomewhat hairy, longer than the fruit-ſtalks, about 4 flowers in each. Petals awned. LINN.—(Empal. containing 2 to 3 florets. Bloſs. valves often merely pointed. ST.) *creſted*

H. ox. viii. 4. 7.—*Pluk.* 33. 7.—*Panicle, &c. Leers* 5. 6. *(Fl. dan.* 251.—*Mont.* 78. *and Scheuch.* 6. 4. *are different plants.)*

Little ſpikes oblong. *Empal.* ſhorter than the florets. *Florets* from 2 to 4. This ſpecies ſeems the connecting link between *Poa* and *Feſtuca.* ST.

Aira criſtata. Sp. Pl.

High barren paſtures. [On the edge of a Marle Rock, Clarkton Leap, near Worceſter. ST.]

POA *min'ima.* Empal. containing 1 floret. ST. *ſmall*

Agroſtis minima, which ſee, but it is truly a *Poa.* ST.

POA *lolia'cea.* Spiked. Little ſpikes ſitting; upright, pointing one way. HUDS. ST. *ſpiked*

H. ox. viii. 2. *row* 2. 6.—*Pluk.* 32. 7.—*Scheuch* 6. 5, *two little ſpikes.*—*C. B. pr.* 18. 2, *repr. in th.* 130, *ill done if the plant, though deſcr. is that of P. loliacea.*—*C. B. th.* 130. *is P. maritima.*

Spike moſtly pointing one way; ſometimes branched at the baſe. *Branches* upright; very ſhort. *Little ſpikes* egg-ſhaped. *Florets* from 3 to 10; ſmooth. HUDS.

Triticum maritimum, which ſee.

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* In the London Botanic Garden has been cultivated for ſome years paſt, a ſpecies which the owner has very happily named *Poa retrofracta,* from *ſeveral of the branches being as it were broken back.* My ſpecimens have induced me to ſuſpect it to be the *Poa diſtans,* expanded in all its parts by cultivation, or a richer ſoil: but I flatter myſelf Mr. Curtis will not be long before he favours the public with a full account of what he may have obſerved concerning this curious ſpecies, in an early number of his excellent Flora. ST.

90. BRI'ZA. Quake-graſs.

Pl. II. fig. 17.

EMPAL. *Huſk* 2 valves, expanding; containing ſeveral florets pointing from two oppoſite lines, collected into a heart-ſhaped ſpike. *Valves* blunt, heart-ſhaped, concave, equal.

BLOSS. Two valves. *Lower valve* the ſize and figure of the empalement. *Superior valve* ſmall, flat, roundiſh, cloſing the hollow of the other.

CHIVES. *Threads* 3; hairlike. *Tips* oblong.

POINT. *Seedbud* roundiſh. *Shafts* 2; hairlike; bent back. *Summits* downy.

S. VESS. The bloſſom unchanged, contains the ſeed until it is ripe.

SEED. Single; very ſmall; roundiſh, compreſſed.

ESS. CHAR. *Empal.* 2 *valves, containing ſeveral florets. Little ſpikes* 2 *rowed. Valves heart-ſhaped, blunt; inner valve very ſmall.*

ſmall BRI'ZA *mi'nor.* Little-ſpikes triangular. Empal. longer than the florets.—

H. ox. viii. 6. 47. *correſponds with our plant and the Linnæan character, though not quoted by Linn.—Barr.* 16.—*Park.* 1165. 5. *(C. B. pr.* 4. *though referred to by Linn. is only a ſmaller ſpecimen of the B. media, which ſee.)*

In paſtures. A. Linn. P. Hudſ. July.

middle BRI'ZA *me'dia.* Little ſpikes egg-ſhaped. Empal. ſhorter than the florets.—

Fl. dan. 258.—*H. ox.* viii. 6. 45.—*Trag.* 670.—*Barr.* 15. 2.—*Ger. em.* 86. 2. *repr. by C. B.* 22. 1.—*Park.* 1165. 2. 6.—*J. B.* ii. 469. 2. 6.——*Branch of the panicle, Leers* 7. 2.—*Scheuch.* 4. 8.—*Floret, Mont.* 39. *(Barr.* 16. *is the minor.) Dwarf ſpecimens, C. B. th.* 25. 1. *cop. in H. ox.* viii. 6. 46.—*J. B.* ii. 469. 2.—*Branch of the panicle, Scheuch.* 4. 9.

Straw with 3 joints near the root. *Panicle* with 2 little ſpikes upon each branch. *Huſks* egg-ſhaped, keeled. *Smaller petal* egg-ſhaped, cloven, plaited. *Tips* reddiſh brown; yellowiſh at the ends. *Duſt* yellow. *Seed-bud* cloven at the end. *Shafts* longer than the empalement. *Honey-cup* ſmall, valvular, contiguous to the ſeedbud. SCOP.—*Smaller petal* ſlightly notched at the end; the plaits, before flowering, embracing and incloſing the tips.

Florets

Florets from 7 to 9 in each little ſpike. WITH.
Cow-quakes. Ladies-hair.
Fields and paſtures. P. July.
Cows, Sheep, and Goats eat it.
If a ſeed is carefully diſſected in a microſcope, with a fine lancet, the young plant will be found with its root and leaves pretty perfectly formed.

92. DAC'TYLIS. Cocks-foot

Pl. II. fig. 13.

EMPAL. *Huſks* compreſſed; ſharp; pointing one way. One *valve* longer than the bloſſom, keeled; the other ſhorter.
BLOSS. *Huſk*; compreſſed; oblong; ſharp. The longeſt *valve* keeled; lying within the longeſt valve of the empalement.
CHIVES. *Threads* 3; hair-like; as long as the bloſſom. *Tips* forked at each end.
POINT. *Seedbud* turban-ſhaped. *Shafts* 2; hair-like; expanding, woolly. *Summits* ſimple.
S. VESS. None. The bloſſom incloſes the ſeed until it is ripe.
SEEDS Solitary; naked; depreſſed on one ſide, convex on the other.
ESS. CHAR. *Empal.* 2 *valves, compreſſed,* 1 *valve larger, and keeled.*
OBS. In ſome ſpecies 1 floret in each empalement; in others 3, 4, or more.

DAC'TYLIS *cynoſuroi'des*. Spikes numerous, rough, *ſmooth* ſcattered, pointing one way. LINN. Flowers in ſpikes. Empalement containing 1 floret. Shaft longer than the chives. ST. *

Linn. the Son, faſc. i. 9.

Straw 2 feet high; like that of an Arundo. *Leaves* 6 upon each ſtraw; broad, very ſmooth and longer than the ſtraw; rough at the edges, bent inwards; ſea-green on the upper ſurface. *Spikes* 6 or more in a row; diverging; chaffy. *Florets* tiled; rough on the hinder part. *Emp.* rough along the keel, ſharp-pointed, ſitting; in 1 row; 1 floret in each, and longer than the floret. *Pointals* long; woolly.

* Floribus ſpicatis, monogynis, calyce unifloro. ST.

woolly. LINN.—The ſtructure of the *pointal* marks an affinity with the *Nardus*, which is confirmed by its habit. ST.

Marſhes in Eſſex, and other parts of the ſea-coaſt, very common. RAY. P. July. Aug.

rough DAC'TYLIS *glomera'ta*. Panicle crowded, pointing one way.—

Schreb. 8. 2.—*Fl. dan.* 743.—*H. ox.* viii. 6. 38.—*Bauh. pr.* 9. 1. *repr. in th.* 45. 1.—*Muſ. ruſt.* v. 1. 5.—*Park.* 1182. 5. *J. B.* ii. 467. 1.—*Barr.* 26. 1. 2.—*Panicle, &c. Leers* 3. 3.—*Floret, Scheuch.* 6. 15. *(Park.* 1160. 7. *ſome other plant.)*

Empal. 4 florets in each. Bunches of flowers but little expanded. *Little ſpikes* compreſſed; in bundles, ſitting; diverging when in flower. *Tips* reddiſh. LINN.——It is not a *Feſtuca*. It is ſometimes viviparous. POLLICH.—*Empal.* containing 2, 3, ſometimes 4 florets. LEERS—*Bloſs.* no long hairs at the baſe, as in the *Phalar. arund.* ST.—*Straw* with 5 joints and 3 leaves. *Sheaths* of the leaves 2 edged, and woolly. *Petals* cloven, a little awn from the cleft of the larger petal. SCOP.—*Florets* in rainy ſeaſons, ſometimes viviparous. Mr. WOODWARD.

Thrives in the ſhade, and under the drippings of large trees. See a farther account of it in *Mus. ruſt.* v. p. 45. and iv. p. 186. *Orchard-graſs.*

Very common. P. June. Aug.

Horſes, Sheep, and Goats eat it. Cows refuſe it.

93. CYNOSU'RUS. Dogs-tail.

Pl. II. fig. 28.

EMPAL. Partial *Fence* large; lateral; generally conſiſting of 3 leaves. *Huſk* 2 valves containing ſeveral florets. *Valves* ſtrap-ſhaped; tapering; equal.

BLOSS. Two valves. *Outer valve* concave, longer than the other. *Inner valve* flat, awnleſs.

CHIVES. Threads 3; hair-like. *Tips* oblong.

POINT. *Seedbud* turban-ſhaped. *Shafts* 2; woolly; reflected. *Summits* ſimple.

S. VESS. None. The bloſſom cloſely wrapping round the ſeed, and not opening.

SEED. Single; oblong, tapering at each end.

ESS. CHAR. *Empal.* 2 *valves, containing ſeveral florets. Proper receptacle leafy; fixed to the ſide.* LINN.—*Empal.* 2 *valves. Bloſs.* 2 *valves; fence winged; compoſed of ſcales pointing from* 2 *oppoſite lines.* ST.

OBS. In moſt of the ſpecies the Fence is like a comb. LINN.—Theſe fences, which connect this genus to the Hordeum and Elymus,

mus, appear as if abortive little ſpikes, analogous to the rudiment *(corpuſculum)* of the *Melica*, and the *neutral florets* in the *Centaurea*, &c. and like thoſe do not ſeem to be of any importance to the fertility or life of the plant. Beauty, and even mere variety, I am well perſuaded, have not been forgotten in the creation of organiſed beings. ST. *

CYNOSU'RUS *criſta'tus* Floral leaves with winged clefts.— *creſted*

Schreb. 8. 1.—*Leers* 7. 4, *Spike*, &c.—*Giſek.* 54.—*Fl. dan.* 238.—*Barr.* 27. 2.—*Muſ. ruſt.* iv. 2. 2.—*H. ox.* viii. 4. *row.* 3. 6.—*C. B. th.* 43. *cop. in Park.* 1160. 3.—*Anderſon.*—*Stillingf.* 11.—*J. B.* ii. 468. 3.

Floral leaves deeply divided into awl-ſhaped ſegments. *Huſks* generally containing 3 florets. *Smaller valve* of the bloſs. ending in 2 points; *larger valve* ending in a ſhort awn. *Florets* all facing one way. WITH.

VAR. β. Spike 4 cornered. *Ray Syn.* 399.

Paſtures, common. P. July. Aug.

CYNOSU'RUS *echina'tus*. Floral leaves winged with awned chaff.— *rough.*

C. B. th. 59. *cop. in Park.* 1168. 6.—*H. ox.* viii. 4. 13.—*Barr.* 123. 2.—*J. B.* ii. 474. 1.—*Scheuch.* 2. 8. *B. D. florets.*—*Mont.* 24. *floret. (C. B. pr.* 16. 2. *is Cenchrus capitat.)*

Bunch congregated, pointing one way. *Floral leaves* only on the outſide of the flowers, alternately winged, the rays ending in awns; 1 floret in each. *Huſk* of 2 valves, containing 2 florets, membranaceous, very fine at the point. *Bloſs.* 2 valves, with an awn upon the outer point. *Shaft* cloven. LINN.

Sandy ſoil. A. July.

CYNOSU'RUS *cæru'leus*. Floral leaves entire.— *blue*

Seſleria cærulea, SCOP. which ſee.

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* In the *C. criſtatus*, *echinatus*, *aureus*, there are generally only 2 florets in an empalement; in the *cærul.* and *aureus*, the little ſpikes are inſerted on different ſides of the ſpike; and in the *durus*, *coracanus*, *ægyptius* and *indicus*, the receptacle cannot be ſaid to be leafy, as in theſe the fence is wanting. The *durus* is truly a Poa, the *Poa dura*, SCOP. and the 3 others have the habit of Panicum, with the ſtructure of Poa, forming a natural aſſemblage of their own. The *Cynoſurus* therefore as a natural genus ſeems to be confined within the following limits, *criſtatus*, *echinatus*, and *aureus*. ST.

94. FESTU'CA. Feſcue.

Pl. II. fig. 19.

EMPAL. *Huſk* 2 valves; upright; containing ſeveral florets collected into a ſlender ſpike. *Valves* awl-ſhaped, tapering. *Inferior valve* the ſmalleſt.

BLOSS. Two valves. *Inferior valve* the figure of the empalement but larger; rather cylindrical but tapering, and ending in a ſharp point.

CHIVES. *Threads* 3; hair-like; ſhorter than the bloſſom. *Tips* oblong.

POINT. *Seedbud* turban-ſhaped. *Shafts* 2, ſhort, reflected. *Summits* ſimple.

S. VESS. The bloſſom ſhuts cloſe upon the ſeed, and does not open again.

SEED. Single; ſlender; oblong; very ſharp pointed at each end, with a furrow running lengthways.

ESS. CHAR. *Empal.* 2 *valves. Little ſpike oblong; almoſt cylindrical. Huſks tapering to a point.*

OBS. Scopoli ſays, that he cannot diſcover any mark of diſtinction between *Feſtuca*, *Bromus*, and *Triticum*. *Bromus* and *Triticum* are indeed only one genus. Bromus is only a panicled Triticum. In *Feſtuca* the outer valve of the bloſſom gradually narrows into the awn, whereas in the *Bromus* or *Triticum*, the awn is inſerted as it were, below the point of the valve, or the edge of the valve ſwells out into a thin membrane on each ſide of the baſe of the awn. In *Feſtuca*, the awn is an extenſion of the whole valve, in *Bromus* and *Triticum*, only of the keel or middle rib, as in *Avena*. ST.

* *Panicle pointing one way.*

barren FESTU'CA *bromoi'des*. Panicle pointing one way. Little ſpikes upright, ſmooth. Empal. valves, 1 entire, the other tapering to a point.—

It differs from the *F. myurus* by the panicle ſomewhat reſembling a ſpike, and the huſks not being fringed. It is like the *F. ovina*, but has broader leaves. LINN.—*Panicle* broader and ſhorter than in the *F. myurus*, the *Spiculæ* are alſo larger and broader. *Straw* with 3 or 4 joints. RAY.

Gram. bromoides panicula heteromalla, &c. Scheuch. 290. *t.* 6. *f.* 10. *is the plant of our herbariums, and I believe that of Linn. (and not Gram. paniculat. bromoides, &c. Scheuch.* 297. *as Linn.) for in Scheuch.*

Scheuch. plant 1 *of the valves of the empalement ends in an awn, whereas in Linnæus's, it is, as in ours, ſimply tapering to a point.*

Pluk. 33. 10.—*Scheuch.* 6. 14, *a little ſpike.*

Walls and dry ſandy places. A. June. July.

FESTU'CA *ovi'na.* Panicle pointing one way; compact, awned. Straw 4 cornered, almoſt naked. Leaves briſtle-ſhaped.— *ſheeps*

Pluk. 34. 2.—*Muſ. ruſt.* iv. 2. 4.—*Anderſon.*—*Leers* 8, 3 *and* 4 *panicles.*—*Scheuch.* 6. 8.—*Mont.* 5.—*H. ox.* 8. 3. 13, *little ſpikes ſitting and ſpear-ſhaped.*

Very ſmall; ſcarcely exceeding 6 inches in height. Mr. DICKENSON.—Lower little ſpikes on fruit-ſtalks: 4 florets in each, with the rudiment of a fifth.

α. *ariſtata. Leers* 8. 3.—*Scheuch.* 6. 6.—*Mont.* 5. awned

Little ſpikes pubeſcent. *Florets* awned, pubeſcent, often fringed. LEERS. ST.

β. *mutica. Stillingf.* 8.—*Leers* 8. 4. ‡ —*Scheuch.* 6. 6. awnleſs

Panicle narrower. Little ſpikes ſmaller. *Florets* without awns. LEERS. ST.

γ. *vivipara. Scheuch. pr.* 1. 2; *cop. in Scheuch (J. Jac.) it.* vi. *p.* 458. *f.* 20.—*Ray* 22. 1.—*Barr.* 272. viviparous

Mountains in Wales, Yorkſhire, and Weſtmoreland.

Florets 3 to 6 in each little ſpike: they are generally tapering to a point, or an awn-like point, but very ſeldom properly awned. HUDS.

Dry gravelly ſoil. [Malvern Hill and Chace. Mr. BALLARD. On the ſummits of Skiddow and Ingleborough. Mr. WOODW.]

P. June. July.

It flouriſhes beſt in a dry ſandy ſoil: Cows, Horſes, and Goats will eat it, but it is the favourite food of Sheep: they prefer it before all other graſſes, and are ſaid ſooneſt to grow fat upon it; for though ſmall, it is ſucculent. The Tartars who lead a wandering life, tending their flocks and herds, always chooſe thoſe ſpots where this graſs abounds. Is not the ſuperiority of the Spaniſh and Engliſh wool owing to the abundance of this graſs in the hilly paſtures where the ſheep are kept?

FESTU'CA *ru'bra.* Panicle pointing one way; rough. Little ſpikes with 6 florets, awned. Floret at at the end awnleſs. Straw ſemi-cylindrical.— *purple*

Scheuch. 6. 9, *branch of the panicle, little ſpikes open.*—*Leers* 8. 1, *branch of the panicle, little ſpikes cloſed.*—*Stillingf.* 9, *ill done.*—*(Anderſ. more like a Poa.)*

It is diſtinguiſhed from the *F. ovina* by its ſize, its red colour when ripe, its broader leaves, and its nearly ſemi-cylindrical ſtraw.

It differs from the *F. duriuſcula* in its broader and flat ſtem-leaves, in its little ſpikes being ſomewhat larger, and its panicle leſs compreſſed. The briſtle-ſhaped root-leaves, and the very ſhort awns diſtinguiſh it from the *F. myurus*. POLLICH.—*Leaves* on the upper ſide covered with a ſoft woollineſs barely perceptible to the naked eye. *Straw* ſmooth, but within the panicle rough: green, but when the ſeeds are ripe, red. LINN.—*Panicle* branches generally ſingle, but frequently in pairs. SCHEUCH.—Taller than the *F. duriuſcula*, and diſtinguiſhed from it by broader leaves, and little ſpikes with awns. Mr. DICKENSON.

High heaths and dry barren paſtures. P. July.

red FESTU'CA *amethyſ'tina*. Panicle waved. Little ſpikes nearly awnleſs, bent inwards, pointing one way. Leaves briſtle-ſhaped.—

Linn. mentions this as being a native of England. ST.—Haller conſiders it as only a variety of the *F. ovina*. P.

hard FESTU'CA *duriuſ'cula*. Panicle pointing one way; oblong. Little ſpikes oblong, ſmooth, 6 florets in each. Leaves briſtle-ſhaped. LINN.—Panicle branched; branches moſtly in pairs. Little ſpikes awned. Root-leaves briſtle-ſhaped. HUDS.

Ray 19. 1.—*Leers* 8. 2, *branch of the panicle.*—*Lob. obſ.* 9. 2.—*(H. ox.* viii. 2. *row* 3. 11. *is referred by Linn. to the F. dumetorum.* —*In H. ox.* viii. 3. 13, *the little ſpikes are ſitting.)*—*Fl. dan.* 848, *cannot be the plant, as the florets are pubeſcent.*

It reſembles the *F. dumetorum* in its thread-ſhaped channelled root-leaves, and its flat graſs-like ſtem-leaves, but differs in having its huſks ſmooth. LINN.—*Stem* and *root-leaves* briſtle-ſhaped. *Little ſpikes* ſmall, egg-ſhaped; with very ſhort awns. *Panicle* more contracted diſtinguiſhes it from the *F. rubra*. Its cylindrical *ſtraw*, and the conſtant preſence of the very ſhort *awns*, from the *F. ovina*. POLLICH.—It varies in its *root-leaves* being briſtle-ſhaped and thread-ſhaped, and rough: in its *ſtem-leaves* being flat and channelled, and bare: in its *little ſpikes* containing fron 6 to 10 florets, and pubeſcent. HUDS.—Hardly to be diſtinguiſhed from the *F. ovina*, but by being taller. It is about 12 inches high. Mr. DICKENSON.—*Empal.* ſmooth; one valve twice as large as the other.

Dry paſtures. P. June.

pubeſcent FESTU'CA *dumeto'rum*. Panicle ſpike-like, pubeſcent. Leaves thread-ſhaped.

Fl. dan. 700.—*H. ox.* viii. 2, *figure the laſt?*

Straw

Straw 12 or 18 inches high, thread-ſhaped, cylindrical, with 2 ſwelled joints. *Root-leaves* 1 foot long; roundiſh, ſcarcely 2 edged. *Stem-leaves* ſhorter, channelled. *Panicle* ſmall, ſpike-like. *Little ſpikes* 10 or 12, oblong, pubeſcent, greyiſh; the upper ones ſitting, ſolitary: the lower ones in pairs, on fruit-ſtalks. *Huſks* terminating in a minute awn. Figured in *Moris. hiſt.* 3. § 8. t. 2. fig. the laſt. Bulbs often grow within the ſheath of the ſtraw. Very nearly allied to the *F. duriuſcula.* LINN.

Feſtuca duriuſcula dumetorum. HUDS. ST.—*Gram. prat. paniculat. elat. &c. var. locuſt. villoſis.* SCHEUCH. p. 290.

Woods and hedges. P. June. July,

FESTU'CA *myu'rus.* Panicle ſpike-like. Empalements very minute, awnleſs. Florets rough; awns long. LINN.—Panicle pointing one way; ſtrap-ſhaped, rough; branches moſtly ſolitary, contiguous. Huſk with 1 valve extremely ſhort. HUDS. *wall*

Leers 3. 5, *panicle.*—*Barr.* 99. 1.—*H. ox.* viii. 7. 43.—*Scheuch.* 6. 12, *branch of the paniele.*—*Ger. em.* 29. * 2, *cop. in Park.* 1162. 8. *(Gouan. hort.* 48. 1, *and Barr.* 100, *different plants.)*

The *awn* grows from beneath the point. HALL.—*Florets* 5 in each little ſpike. *Panicle* branched, but not ſpreading: very long, ſlender, and bending.

Gram. feſtuceum myurum elat. &c. Scheuch. 293. *t.* 6. *f.* 11, *and Barr.* 99. 2; *cop. in Pet.* ii. *gram. ital.* 5. 10, *are the plant of our herbariums, as it appears to be that of Pollich, (and not Gram. feſt. myur. minor. &c. Scheuch.* 294, *as Linn.)* ST.

Capons-tail-graſs.—Walls and dry barren places. A. June.

FESTU'CA *gla'bra.* Panicle branched, upright, compact. Little ſpikes awl-ſhaped, of 3 florets, awned, ſmooth. LIGHTF.—*(Nearly allied to the next ſpecies, if not the ſame.* HUDS. *ſmooth*

See alſo a deſcription in Lightf. Fl. Scot. p. 1085.

Found at Ardbigland in Galloway, by Mr. Lightfoot. P. July.

FESTU'CA *cam'brica.* Panicle pointing one way, oblong, upright, branched. Little ſpikes awned, ſmooth. Leaves flat, naked. HUDS. *welſh*

Root fibrous. *Straw* near a foot high; ſlanting, cylindrical, leafy, ſmooth; with 2 or 3 joints. *Root-leaves* nearly upright; ſword-ſhaped, ſharpiſh, channelled. *Stem-leaves* 2 or 3; on leaf-ſtalks; ſharpiſh, flat, fibrous. *Leaf-ſtalk* cylindrical, ſheathing, ſcored, hairy. *Props* membranaceous, ſheathing, blunt. *Panicle*

rather compact, branched at the bottom. *Little ſpikes* on fruit-ſtalks, about 6 florets in each, egg-ſhaped. *Awns* ſhort. *Fruit-ſtalks* nearly as long as the ſpiculæ. Nearly allied to the *F. duriuſcula*. HUDS.

On the higheſt hills about Llanberis, plentifully. P. July. Aug.

tall FESTU'CA *ela'tior*. Panicle pointing one way; upright. Little ſpikes moſtly awned; the outer ones cylindrical. LINN.—Branches in pairs. Little ſpikes egg-ſhaped. Leaves flat. HUDS.

Schreb. 2.—*Leers* 8. 6.—*Scheuch.* 5. 18, *a branch of the panicle.*—*H. ox.* viii. 2. 15.

Agrees in many reſpects with the *F. fluitans pratenſis*. Its claim to a diſtinct ſpecies may be juſtly doubted. HUDS.

α. Broad-leaved. β. Narrow-leaved. *Buxb.* v. *app.* 16.

Gram. arundinac. locuſt. &c. SCHEUCH. 266. *(as in Linn. ſyſt. veg. but improperly omitted in Syſt. plant. a Reich.* ST.)

Meadows, paſtures, and ſides of hedges. P. June. July.

It makes an excellent paſture, but requires a rich ſoil. LINN.

Horſes, Cows, Sheep, and Goats eat it.

flote FESTU'CA *flu'itans*. Panicle branched, upright. Little ſpikes nearly ſitting, cylindrical, awnleſs. LINN.—Panicle poining one way; its branches ſolitary and in pairs. Little ſpikes ſtrap-ſhaped. Leaves flat. Straw 2 edged. *Fl. dan.*

common α. *Curt.* 1. 6.—*Leers* 8. 5, *a portion of the panicle.*—*Schreb.* 3. *(f.* 2, *out of bloſſom.)*—*Fl. dan.* 237.—*Stilling f.* 10.—*H. ox.* viii. 3. 16.—*Ger. em.* 14. 1, *cop. in J. B.* ii. 490.—*Muſ. ruſt.* iv. 1. 6.—*C. B. th.* 41, *cop. in Park.* 1275. 8.—*Scheuch.* 4. 5, *branch of the panicle.*—*Mont.* 35, *a little ſpike. (Buxb.* iii. 54, *branches of the panicle twice divided. Its habit, as alſo that of Barr.* 7, *induce me to believe it with Buxbaum to be a diſtinct ſpecies.*—*Muſ. ruſt.* iv. 2. 6, *is Poa pratenſis.)*

Shafts naked below, and not feathered down to the baſe as in Schreber's fig. *Seed* crowned with 2 little horns, the remains of the ſhafts; ſometimes affected with the diſeaſe called Ergot. CURT. —EMPAL. 2 ſkinny ſpear-ſhaped valves; the *outer valve* about half as long as the other, and leſs concave. They are placed at the baſe of a ſlender, cylindrical, but flatted little ſpike, compoſed generally of 10 florets. *Bloſs. outer valve* ſpear-ſhaped, concave, ending in a flat blunt point. *Inner valve* ſmaller, flat; the edges bent back; ſlightly cloven at the end into 2 ſharp, but very ſhallow ſegments. CHIVES. *threads* very ſlender. *Tips* ſlightly cloven at each end. POINT. *ſeed-bud* egg-ſhaped, very ſmall. *Shafts* expanding.

Summits

Summits beautifully fringed. SEEDS ſemi-cylindrical, blunt, marked with a ridge upon the flat ſide. *Stems* ſending out roots from the joints. *Leaves* floating upon the water. *Panicle* very long; iſſuing from a long 2 edged ſheath. WITH.

β. loliaceæ. Spiked. Little ſpikes alternate, ſitting, flatted. HUDS. ST. Darnel
H. ox. viii. 2. 2. *(a) a var. of Lolium perenne, is a good repreſentation of it, as theſe plants are diſtinguiſhable only by their empalements.*

F. fluitans in meadows becomes in every reſpect leſs, and the panicle is frequently changed to a ſimple ſpike. CURT. ST.

Florets 4 to 10. The ſeeds of *F. fluitans α* ſown in a garden, became this var. the firſt year, and the 2d year changed into the following variety. HUDS.

γ. pratenſis.—*Muſ. ruſt.* iv. 2.—*H. ox.* viii. 2. 2. *δ.*—*Scheuch.* 4. 6, meadow
branch of the panicle.—*Park.* 1146. 8, *the fig. with 2 panicled ſtraws.*

Florets blunt, but in dry ſituations tapering to a point. HUDS.

Gram. paniculat. elatius, paniculis, &c. SCHEUCH. 202, *and alſo Gram. loliac. panicula, &c.* SCHEUCH. 200, *as Haller could not perceive any difference in the ſpecimens of each in Scheuchzer's herbarium.*

Flote graſs.

Wet ditches and ponds, very common. P. June.—Sept.

The ſeeds are ſmall, but very ſweet and nouriſhing. They are collected in ſeveral parts of Germany and Poland, under the name of *Manna Seeds*, and are eſteemed a delicacy in ſoups and gruels, upon account of their nutritious quality, and grateful flavour. When ground to meal, they make bread very little inferior to that in common uſe from wheat. The bran ſeparated in preparing the meal, is given to horſes that have the worms; but they muſt be kept from water for ſome hours afterwards. Geeſe are very fond of the ſeeds, and well know where to look for them. The plant affords nouriſhment to the *Phalæna Feſtucæ.*

** *Panicle equal.*

FESTU'CA *decumbens.* Panicle upright. Little ſpikes nearly egg-ſhaped, awnleſs. Empalement larger than the florets. Straw decumbent.— *decumbent*

Fl. dan. 162.—*Pluk.* 34. 1.—*H. ox.* viii. 1. 6.—*Mont.* 2. 1.—*Panicle, &c. Leers* 7. 5.—*Scheuch.* 3. 16. *A. B. C.*—

Florets 3 in each empalement. Allied to the *Melica.* LINN.—It ſhould arrange with the *Melicas.* HALL.—*Panicle* ſimple. *Empalement* as long as the little ſpikes.

Barren moiſtiſh ground. P. Aug.

Sheep refuſe it.

FESTU'CA *pratenſis.* Panicle upright. Little ſpikes ſtrap-ſhaped, without awns. Leaves flat. HUDS. *ed. I.* Mr. WOODWARD. *meadow*

There is a var. of *F. fluitans* which I have found growing along with this, in moist meadows, but the *F. pratensis* and *fluitans* are certainly distinct species. Mr. WOODWARD.

Festuca fluitans pratensis. HUDS. ed. II. which see.

spiked 2. *loliacea.*—*Festuca fluitans loliacea.* HUDS. ed. II. is a var. of this. Mr. WOODWARD.—I have a specimen with a single branch from the side. ST.

Meadows and pastures. P. June. July.

Darnel FESTU'CA *lolia'cea.* Spiked. Little spikes alternate, sitting, flatted, awnless. HUDS. ed. I. *Festuca fluitans loliacea,* which see.

spiked FESTU'CA *pinna'ta.* Little spikes sitting. Straw undivided. Awns shorter than the blossoms. POLLICH. ST.

Barr. 25, *cop. in Pet.* ii. *gram. ital.* 3. 1.—*Wieg.* 1. 10, *spike.*—*C. B. pr.* 18. 1. *repr. in th.* 133.—*Mont.* 16, *and Scheuch.* 1, 7. *H. a little spike. (Fl. dan.* 164, *is referred by Hall. and Pollich. through oversight, to this as well as to the F. sylvat.)*

Plant smooth, yellowish green. *Lower leaves* now and then somewhat hairy. *Florets* from 6 to 12. HUDS.

Festuca pinnata. HUDS.—*Bromus pinnatus.* LINN.—(*B. pinnat.* POLLICH; *the Gram. loliac. corniculat.* SCHEUCH. 35; *Triticum Hall.* 1481, seems to be a pubescent variety of this. ST.)

Chalkey soils. P. July.

wood FESTU'CA *sylvat'ica.* Little spikes sitting. Straw undivided. Awns as long as the blossom. POLLICH. ST. —Little spikes alternate, rather pointing 2 ways. HUDS. LIGHTF. ST.

Leers 10. 3, *spike.*—*Wieg.* 1. 11, *and Fl. dan.* 164, *spike and leaf.* —*Bar.* 83. 2, *cop. in Pet.* ii. *gram. ital.* 3.—*H. ox.* viii. 6. *row.* 3. 4, *on the left hand.*

Plant hairy. *Awns* longer than the blossom. *Florets* from 6 to 12. HUDS.—*Leaves* rough downwards; upper surface hairy, the lower less so, sometimes smooth. *Little spikes* alternate, somewhat hairy; hairs short. SCHEUCH. ST.—Evidently different from the preceding. *Straws* with soft hairs; several from the same root. POLLICH. ST.—*Straw* slender; joints woolly. *Spike-stalk* slender, weak, and hence often pendulous. WIEGEL. ST.—*Straw* from 1½ to 3 feet high, upper part of the lower joints hairy where not covered by the leaf-sheath. *Leaves* under surface generally hairy towards the base. *Little spikes* from 7 lines to 1 inch 6 lines long. *Empal. valves* tapering

ing to a point, and often ending in a ſhort awn: that of the larger valve ſometimes a line long; rough with minute points and hairs. *Bloſs. outer valve* ſmooth along the back, but ſides rough with minute hairs, which are longer towards the point of the valve; the *inner* rounded at the end; edges fringed with ſhort hairs; except at the end, which is pubeſcent. It has the habit of a *Bromus*, the artificial characters of a *Triticum*, (ſee *Tritic. canin.*) but in its ſtructure it is truly a *Feſtuca*. ST.

Gram. loliac. corniculat. montan. SCHEUCH. 38.—*Feſtuca ſylvatica.* HUDS. ed. 1.—*Bromus ſylvaticus.* POLLICH.—*Bromus gracilis.* WIRGEL.—*Triticum ſylvaticum.* MŒNCH.—*Bromus pinnatus.* LEERS.

(*Gram. loliac. corniculat. latifol.* SCHEUCH. 36. HALL. 1431. ß. ſeems to be only a var. in which the hairs of the bloſſom are exceedingly ſhort. ST.)

Woods and hedges. [Worceſterſhire. ST.] P. July.

95. BRO'MUS. Brome-graſs.

Pl. II. fig. 20.

EMPAL. *Huſk* 2 valves, expanding; containing ſeveral florets collected into a ſpike. *Valves* oblong egg-ſhaped, taper, without awns. The *inferior valve* ſmaller.

BLOSS. 2 valves. The *inferior valve* large; the ſize and figure of the empalement; concave, blunt, cloven; ſending out a ſtraight *awn* from beneath the end. The *ſuperior valve* ſpear-ſhaped, ſmall; awnleſs.

CHIVES. *Threads* 3; hair-like; ſhorter than the bloſſom. *Tips* oblong.

POINT. *Seed-bud* turban-ſhaped. *Shafts* 2; ſhort; woolly; reflected. *Summits* ſimple.

S. VESS. The bloſſom ſhuts cloſe upon, and adheres to the ſeed.

SEED. Single, oblong, covered; convex on one ſide, furrowed on the other.

ESS. CHAR. *Empal.* 2 *valves. Little ſpikes oblong, cylindrical. Florets pointing from two oppoſite lines. Awn iſſuing from beneath the end.*

BRO'MUS *ſecali'nus.* Panicle expanding. Little ſpikes egg-ſhaped. Awns ſtraight. Seeds diſtinct. Huſks ſmooth. LINN.—Little ſpikes upright. Bloſſom, inner valve rounded at the end. ST. *ſiela*

Leers 11. 2, *branch of the panicle, (C. S.) little ſpike ripe.*—*Scheuch.* 5. 10.—*Wieg.* 1. 2, *little ſpike ripe.*—*J. B.* ii. 438, *ripe.*—*C. B. th.* 143, *the branch on the left hand.*

Little ſpikes when ripe two rowed, and 3 or 4 lines broad. *Florets* from 7 to 11, ſmooth, greeniſh, membranaceous at the edge. *Bloſs. outer valve* cloven, or almoſt hollowed at the end. *Awn* from the baſe of the cleft. SCHEUCH. ST.—*Leaves* with ſhort hairs on each ſide. *Panicle branches*, ſome ſimple, others branched. *Empal.* rather blunt, 2 to 3 lines long. *Bloſs.* blunt. *Awn* 3 lines long. POLLICH. ST.—*Empal. and Florets* roughiſh. *Bloſs. outer valve* with 7 ribs, dotted. *Awn* as long as the valve. LEERS. ST.—*Little ſpikes* 8 or 10 lines long. *Empal.* ribbed. *Bloſs. outer valve* oblong, tapering below; not gloſſy, ribs not prominent; greener than the reſt of the valve, each on the outſide appearing as if compoſed of 2 lines. ST.

Feſtuca gramin. glum. glabris. SCHEUCH.

251. *Bromus vitioſus.* WIEG. except that the leaves are deſcribed as being ſmooth, and the awn as ſhort again as the bloſſom. ST.

In corn fields only. DILL. R. Syn.

hairy β. Huſks hairy. LINN.—Panicle nodding when ripe. Bloſs. outer valve tapering upwards. ST.

Scheuch. 5. 9, *little ſpike, one of the larger ſize.*—*H. ox.* viii. 7. 16, *with a little ſpike of the natural ſize: ſeeds ripe.*—*C. B. th.* 143. (*Park.* 1150. 2, *ill done, if the plant.*)

Huſks, hairs wearing off by age. HALL. LIGHTF.—*Leaves* hairy above; rough, but free from hairs underneath. *Empal. inner valve* ſometimes ending in an exceedingly ſhort awn: 3½ or 4 lines long; *outer* 3 and 3½ long. *Florets*, the lowermoſt 4 and 5 lines long. SCHEUCH. ST.—*Bloſs. inner valve* oblong egg-ſhaped, nicked at the point, and readily ſeparating down to the inſertion of the awn. *Awn* from 2½ to 5 lines long. ST.

Corn fields. A. May. June.

compact. 3. *hordeaceus.*

Panicle upright, contracted. LINN.—Florets tiled. Bloſs. inner valve ſmooth, rounded at the end. ST.

Cultivated in a garden it became var. α. LINN.—*Little ſpikes* yellowiſh, ſometimes only 2, or even only a ſingle one terminating the ſtraw. LEERS. ST.—*Straw* from 9 to 36 inches high; when dwarfiſh almoſt thread-like. *Leaves* pubeſcent on both ſides, with ſoft longer hairs on the upper ſurface. *Leaf-ſheaths*, lower hairy, upper ſmooth. *Panicle* when preſent about 4 inches long, ſimple. *Little ſpikes* 5 or 6 lines long, tapering to a point, from 1½ to 2 lines broad. *Florets* from 3 to 7, but moſtly 6; the lowermoſt 3 lines long. *Empal. bloſs.* ſtructure and admeaſurement as *B. ſecalin.* α.—Leers conſiders it as a *var. of the B. mollis*, but I have found plants

of

of the latter growing amongſt them, with the habit as well as ſtructure peculiar to that ſpecies. ST.

Bromus polymorphus. δ. HUDS.—*Bromus mollis.* γ. HUDS.—Plant entirely ſmooth. HUDS. but this does not accord with the obſervation of any of the authors quoted above. ST.

Hills and rocky barren places. LINN.—Meadows both dry and moiſt. RAY.—[Near Kemſey and Ridd Green, Worceſterſh. ST.]

A. May. June.

The ſeeds, mixed with corn, may be uſed to make bread; but when in too large a proportion they render the bread brown and bitter, and they who eat it experience a temporary giddineſs.

The panicles are uſed by the common people in Sweden for dying green.—This graſs is eaten by Horſes, Cows, Goats, and Sheep.

BRO'MUS *mol'lis.* Panicle rather upright. Spikes egg-ſhaped, downy. Awns ſtraight. Leaves with very ſoft wool. LINN.—(Little ſpikes ſometimes ſmooth. See *Scheuch.* and *Curt.* ST.)* *ſoft*

Leers 11. 1, *panicle.*—*Schreb.* 6. 1.—*Curt.* 1. 3, *little ſpikes ſmooth.*—*H. ox.* viii. 7. 18.—*Wieg.* 1. 4, *a little ſpike.*—*Scheuch.* 5. 12, *branch of the panicle, the little ſpikes ſmooth.*—*Barr.* 83. 1, *not a good reſemblance.* (85. *not a graſs.*)

Reſembles the *B. ſecalinus,* but is white with ſoft downy hairs. The *joints* are thicker, cylindrical, and very hairy on the lower part. *Leaves* extremely ſoft on both ſides; ſcored. *Panicle* on a ſhort foot-ſtalk. LINN.—*Little ſpikes,* about 7 florets in each. *Empal. outer valve* ſmaller than the inner. *Bloſs. valves* very ſlightly cloven at the end; the *upper* valve flat, fringed at the edge with briſtly hairs. *Tips* red. *Shafts* none. *Summits* woolly. *Straw* with 5 or 6 crooked joints. *Root* fibrous. The whole plant covered with ſoft hairs. WITH.

Oat-graſs is the name by which it is known to farmers, and they ſow it along with clover. WITH.

α. Whole *plant* covered with a ſoft hairineſs. HUDS. *woolly.*

Little ſpikes from 4 to 8 lines long, and 1½ to 2½ broad. *Empal. inner valve* 3 and 4 lines long, *outer* narrower, and about a line ſhorter. *Florets* tiled, the lowermoſt about 4 lines long. *Bloſs.* blunt at the end. *Awns* from 3 to 5 lines long. SCHEUCH. ST.—*Fruit-ſtalks* generally ſupporting only 1 flower, but ſometimes 2. *Little ſpikes* upright. *Bloſs. outer valve* ſlightly cloven at the point; ſegments pointed. *Shafts* inſerted below the point of the ſeed-bud.

LEERS.

* Mr. Hudſon conſiders the *B. mollis* and *ſecalinus* as varieties of one ſpecies.—*B. polymorphus.* SCOP.—Panicle nearly upright, and nearly ſimple. Little ſpikes egg-ſhaped. Florets blunt. Awns ſtraight. HUDS.

Leers. St.—*Shafts* from *one* ſide of the ſeed-bud. Curt. St.—*Panicle* when in fruit cloſely contracted. *Little ſpikes* egg-ſpear-ſhaped, and ſpear-ſhaped, tapering to a point. *Florets* 5 to 14. *Bloſs. outer valve* only ſlightly nicked at the end, but eaſily ſeparating down to the inſertion of the awn; *awn* inſerted about ½ a line below the point. St.

Gramen. avenac. villos. &c. Scheuch. 253. *n.* 4. (Schreb. Pollich. St.)

Meadows, paſtures, walls, hedge banks. [In corn fields and uncultivated places. Leers.] May. June.

dwarf 2. *B. nanus.* (Retz. ſcand. St.)—Little ſpikes few, on ſhort fruit-ſtalks, upright, flatted, trowel-egg-ſhaped. Huſks ſomewhat tiled, pubeſcent, pointed. Awns ſhorter than the bloſſoms, ſtraight. Wieg. St.

Wieg. 1. 9.

Straw 2 to 3 inches high; with 3, 2, and ſometimes only 1 little ſpike. *Huſks* tiled. Wieg. St.

[Barren ſoil, near Stourbridge. St.]

ſmoothiſh. β. Leaves hairy. Panicle ſmoothiſh. Huds. With.

Gramen. &c. Scheuch. *ib.* *Huſks* almoſt entirely ſmooth. St.—*Florets* 6 in each little ſpike. *Straw* moſtly with 4 joints. With.

ſmooth-huſked. δ. Lower leaves ſomewhat hairy. Panicle ſmooth. Huds.—Huſks ſmooth. Bloſs. upper valve tapering upwards: ribs prominent. St.

H. ox. viii. 7. 19.

Meadows and paſtures. A. May. June. Huds.

Dry places. B. Linn.

open-awned BRO'MUS *ſquarro'ſus*. Panicle nodding. Little ſpikes egg-ſhaped. Awns ſtraddling. Linn.——Panicle ſimple, ſomewhat nodding. Florets blunt. Huds.—*(Panicle ſcattered, nodding as it ripens.* Hall.—*Little ſpikes at firſt ſpear-ſhaped, afterwards oblong.* St.)

Barr. 24. 1, *ripe, with little ſpike and floret.—Scheuch.* 5. 11, *little ſpike, ripe.—Mont.* 32. *(Barr.* 24. 2, *appears dubious, and* 9. 1, *ſeems to be B. diſtachyos.)*

Awn awl-thread-ſhaped, at the baſe flat within, keeled without, and by no means of the ſtructure of that of *Avena*, to which Haller has referred it. St.—*Panicle* nodding. *Spikes* ſmooth, egg-ſhaped, each on a little pedicle thread-ſhaped, but thicker towards the top. Awns ſtraddling. Linn.

Corn fields near Glaſtenbury, Somerſetſhire, and Marſhfield, Suſſex. Huds. A. July.

upright BRO'MUS *erec'tus*. Panicle nearly ſimple, upright. Little ſpikes egg-oblong. Florets taper pointed, awned, ſmooth.

ſmooth. HUDS.—*B. racemoſus*. Bunch quite ſimple. Fruit-ſtalks with 1 flower. Little ſpikes with generally 6 florets. ſleek, awned. LINN.? * (HUDS.)

(Pluk. 299. 2.† —H. ox. viii. 7. 13, with a little ſpike, are referred to by Hudſon, but by Linn. to B. tectorum.—H. ox. cannot be the plant, as the florets are repreſented as rough, neither is it the tectorum, as they are not hairy.)

Leaves flat, and in dry ſituations edges rolled in, hairy. *Panicle* ſimple. HUDS.—*Awns* a continuation of the keel of the bloſſom, thus forming the connecting link between this genus and Feſtuca. Mr. WOODWARD.

Meadows and chalkey paſtures. [Ditchley Park, Oxfordſhire, and near Oxford. Mr. WOODWARD.] P. June. July.

β. arvenſis. *Panicle* ſomewhat branched, ſmooth. *Little ſpikes* egg- corn oblong, ſmooth. *Florets* 5 to 8, awned. *Awns* ſtraight, ſhort, HUDS.—Lower part of the panicle nodding. Mr. WOODWARD.

Bromus arvenſis. LINN.? (HUDS.)

Does not accord with Linnæus's deſcription of this ſpecies. Beſides it is perennial. Mr. WOODWARD.

Cornfields. [Growing intermixed with α in Ditchley Park. Mr. WOODWARD.] P. June. July.

BRO'MUS *madritenſis*. Panicle between open and *wall* upright. Little ſpikes ſtrap-ſhaped; the intermediate ones in pairs. Pedicles thicker upwards. LINN.—Panicle ſimple. Florets taper pointed, rough. Awns long. HUDS.‡ *Barr.*

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* *Paniele* conſiſting of an undivided bunch. *Fruit-ſtalks* alternate, generally ſolitary; 1 floret on each. *Florets* egg-ſhaped, tapering to a point. *Leaves* woolly underneath. LINN.

† I have a ſpecimen gathered by Mr. Pitchford, but where he does not now recollect, exactly reſembling this figure, but extremely different from the *B. erectus*. Mr. WOODW.—A *little ſpike* communicated to me by Mr. W. accords perfectly with my foreign ſpecimens of *B. tectorum*, except in the abſence of the hairs of the outer valves of the *bloſſom*, probably the effect of age, the ſeeds being ripe. ST.

‡ BROMUS. Panicle upright, contracted. Little ſpikes ſtrap-ſhaped. Florets taper-pointed, rough. Awns ſhorter than the florets. ST.

Scheuch. 5. 13, *two little ſpikes*.—*H. ox.* viii. 7. 13.

Leaf-ſheaths with ſcattered hairs. *Little ſpikes* as much as an inch long, and when the florets open, 3 lines wide. *Empal. valve* tapering to a point, membranaceous at the edge, the *inner* 5 lines long. *Florets* woolly, with very ſhort hairs. *Fruit-ſtalks* pubeſcent. Awns from 1½ to 2 lines long. SCHEUCH. ST. —*Little ſpikes* very like thoſe of *B. aſper*. *Florets* generally 10, tapering to a point

Barr. 76. 1.

Straws 2 feet high, ſleek, joints ſwoln. *Leaves* broadiſh, ſoft. *Panicle* looſe, with no great number of little ſpikes. *Little ſpikes* ſtraight, nearly upright, in threes, each of which generally on a fruit-ſtalk, and ſometimes a fourth, with moſtly 2 on a fruit-ſtalk. *Awns* long, upright. LINN.—*Empal. greater valve* 4 or 5 lines long; *leſſer* 2½ or 3 long. *Florets* 5 or 6, 6 and ſometimes 4 lines long. *Awns* 7 and 8 lines long. *Bloſs. valves* with cloſe ſhort hairs at the edges. *Awns* 7 and 8 lines long. SCHEUCH.

Bromus muralis. HUDS. who has aſſigned no reaſon for changing the name given it by Linnæus. ST.

On old walls about London and Oxford. HUDS. [Severn Stoke, Worceſterſhire. ST.] A. May.

hairy-ſtalked BRO'MUS *aſper.* Panicle nodding, rough. Little ſpikes woolly, awned. Leaves rough. LINN.—Panicle branched; branches in pairs. Little ſpikes ſtrap-ſhaped, round, longer than the awns. HUDS.——Awns ſtraight. Leaf-ſheaths hairy. CURT.—Awns ſhorter than the florets. HALL. ST,

Curt. ii. 18, *panicle juſt expanded.—H. ox.* viii. 7. 27, *florets open.—(Mont.* 2, *and Barr.* 84, *not the plant.—Vaill.* 18. 2, *ſeems a different plant, though the ſingle little ſpike reſembles it.)*

Panicle branches ſometimes in threes. CURT.—*Empal. florets* 6 to 12. VOGLER.

Bromus ramoſus. HUDS. ed. I. LINN. ſyſt. veg. p. 102.—LIGHTF. 1087. * —*hirſutus*, CURT.—*nemoralis*, HUDS. ed. II.—*ſylvaticus*, VOGLER. *ſchediaſm.*—*altiſſimus*, WIGGERS.—*Bromus montanus.* RETZ. *ſcand. and obſ.* ii. *n.* 4, *as it ſhould ſeem from the ſpecimens communicated to him by Meſſrs. Ehrhart and Dryander; but his characters of "Empal. with 6 florets," ill agrees with it. (Not B. montanus*, POLLICH. *in which "The branches of the panicles are in two's, three's, and four's," and the bloſſom only* 1 *line longer than the awn.)*

(Bromus verſicolor. POLLICH. *the Brom. fol. hirſut. &c.* HALL. 1503, is a different ſpecies. ST.)

Woods and hedges, frequent. A. July. Aug.

barren BRO'MUS *ſteri'lis.* Panicle open. Little ſpikes oblong, florets pointing 2 oppoſite ways. Huſks tapering and awned.— *Curt.*

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point at the baſe. Correſponds, except in the length of its awns, with the deſcriptions of the *B. madritenſis*, of which it is probably only a variety. ST.

Gram. bromoides pratenſe, &c. SCHEUCH. 255.—*Bromus hirſutus anguſtifol. &c.* HALL. 1507.—*Bromus ſylvaticus when growing in open ſituations.* VOGLER *ſchediaſm.* p. 4. ST.

Curt. 1. 4.—*H. ox.* viii. 7. 11.—*Leers* 11. 4, *branch*, &c.—*Mont.* 1, *little ſpike.*—*Dod.* 540. 2, *repr. in Lob. obſ.* 20. 1, *and Ger. em.* 76. 1, *and cop. in Park.* 1148. 1.—*Ger.* 69. 1, *repr. in C. B. th.* 146.—*Math.* 1205.—*J. B.* ii. 439. 2.—*Scheuch.* 5. 14, *little ſpike.*—(*Park.* 1148. 2, *ſeems to be the B. tectorum.*)

Shafts from the middle of the ſeed-bud. CURT.——Little ſpikes widening towards the point. WIEG. ST.—Panicle nodding, branched; branches in fours. HUDS.—(In fours and ſixes. POLLICH. threes and fours. WIEG. ST.)—*Fruit-ſtalks* generally with only 1 little ſpike, but ſometimes 2. LEERS.—*Empal. valves* very ſlender, taper, and ſkinny at the edges. *Bloſs. outer valve* ſkinny at the edges, cloven, and furniſhed with an *awn* nearly twice its own length. *Inner valve* flat, fringed at the edges. *Tips* orange colour. *Florets* 6 or 7 in each little ſpike. *Little ſpikes* on very long fruit-ſtalks, 4, 5, or 6 iſſuing from the ſame point. *Leaves* ribbed, hairy, not very harſh; the uppermoſt leaf nearly as tall as the panicle. WITH.

Woods and hedge ſides, frequent. A. June. July.

BRO'MUS *arvenſis*. Panicle nodding. Little ſpikes *corn* oblong egg-ſhaped.?—*

Fl. dan. 293.

Straw 5 inches high. *Root-leaves* awl-ſhaped, ſmooth, channelled, ſtiff. *Panicle* cloſe, conſiſting of 8 or 10 little ſpikes. *Little ſpikes* almoſt ſitting, and growing on one ſide of the ſtalk; ſmooth, awnleſs, conſiſting of 5 florets. The above differences poſſibly occaſioned by the ſea water, and the poverty of the ſoil. LIGHTF.

Shores of the iſle of Oranſay. LIGHTF. A. July.

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* Three diſtinct plants ſeem to have been referred to this ſpecies.

(1.) *Fl. ſuec. n.* 97.—*Leers n.* 84. *t.* 11. *f.* 3.—*Little ſpikes* ſtrap-ſhaped, at firſt egg-ſhaped at the baſe, and tapering, 3 times as long as the empalement, pubeſcent in the microſcope. *Empalement* egg-ſhaped. *Awn* ſomewhat longer than the bloſſom. ST.

(2.) *Scheuch. p.* 262. *t.* 5. *f.* 15.—*Pollich. n.* 113.—*Little ſpikes* ſtrap-ſpear-ſhaped, about as long again as the empalement. *Empalement* ſpear-ſhaped. *Awn* ſomewhat ſhorter than the bloſſom, and almoſt from the very point of the valve. ST.

(3.) *Fl. dan. t.* 293.—*Scheuch. p.* 251. *n.* 2, *variety without awns.*—*Wieg. obſ. n.* 3. *t.* 1. *f.* 3; *who doubts, and, I think, with propriety, whether it be not a variety of his B. vitioſus, the B. ſecalinus* α.—*Lightf. p.* 104.—*Little ſpikes* oblong egg-ſhaped. *Huſks* ſmooth, tiled, blunt. *Empalement* egg-ſhaped. *Awn* half as long as the bloſſom; ſometimes wanting. ST.——I have a ſpecimen of this with *awns* of ſome length from an excellent botaniſt, but where gathered I do not know. Mr. WOODWARD.

BRO'MUS

tall BRO'MUS *giganteus.* Panicle nodding. Little ſpikes with 4 florets, ſhorter than the awns. LINN.—Little ſpikes ſpear-ſhaped. SCHREB. ST.——Branches in pairs. SCOP. HUDS. ST.—Panicle branched. Little ſpikes with about 4 florets. HUDS.

Schreb. 11.—*Leers* 10. 1, *two branches of the panicle.*—*Vaill.* 18. 3.—*Scheuch.* 5. 17, *branch of the panicle.*—*Wieg.* 1. 5, *little ſpike.*—*Scheuch.* 5. 19, *a good repreſentation of the ſmaller ſpikes, but does not accord, as Retz. remarks obſ.* i. *n.* 11.—*Mont.* 71; *awns too ſhort.*—(*Fl. dan.* 440, *has branches in pairs, and not ſeveral from a joint, as the triflorus, to which Linn. has referred this fig. though with a note of doubt, is deſcribed by* SCHEUCH. *but they expand different ways, as in the B. patentiſſimus of* WIEG. *who regards it as an awned variety of that ſpecies.*)

Panicle branches 2 from each knot. LINN.—Sometimes 3. SCHEUCH. ST.—*Leaves* bordered at the baſe on each ſide with a griſtly membrane, upper ſurface and the under towards the end rough downwards. *Sheaths* ſleek, except the lowermoſt, which are rough (upwards). *Empal.* with from 3 to 7 florets. *Bloſs. inner valve* as long or longer than the other. *Awn* finer than a hair, ſomewhat winding. LEERS. ST.—*Branches* lengthened out. *Little ſpikes* at firſt roundiſh, when at maturity ſomewhat flatted. WIEG. ST.—*Empal.* ſleek, gloſſy. *Bloſs.* rough downwards, not hairy, as Wieg. *Branches* in pairs, almoſt to the point of the panicle. ST.—*Straw* 5 feet high. *Leaves* half an inch broad. WITH.

Gramen. bromoid. montan. &c. Scheuch. 263. *t.* 5. *f.* 16, *alſo referred to by* WIEG. *is the B. montanus of* SCOP. and POLLICH. ST.

Woods and moiſt hedges. P. July. Aug.

Cows, Horſes, Goats, and Sheep eat it.

ſpiked BRO'MUS *pinna'tus.* Straw undivided. Little ſpikes alternate, nearly ſitting; cylindrical, ſomewhat awned. LINN.—Feſtuca pinnata. HUDS. which ſee.

Little ſpikes with their flat ſides turned towards the ſtraw. *Awns* terminating. *Leaves* flat. LINN.

Dry mountainous Woodlands. P.

96. STI'PA. Feather-graſs.

Pl. II. fig. 14.

EMPAL. *Huſk* 2 valves, taper, flexible; incloſing 1 floret.
BLOSS. 2 valves. *Outer valve* terminated by a very long, ſtraight, twiſted awn, jointed at the baſe. *Inner valve* ſtrap-ſhaped, without an awn; as long as the outer valve.
CHIVES. *Threads* 3; hair-like. *Tips* ſtrap-ſhaped.
POINT. *Seed-bud* oblong. *Shafts* 2; hairy; united at the baſe. *Summits* downy.
S. VESS. The huſk adhering.
SEED. Single; oblong, covered.

ESS. CHAR. *Empal.* 2 *valves, containing* 1 *floret. Bloſs. outer valve terminating in an awn. Awn jointed at the baſe.*

STI'PA *penna'ta.* Awns woolly.— *downy*

H. ox. viii. 7. *row.* 3. 9.—*Barr.* 46.—*C. B.* 71.—*Clus.* ii. 221. 3, *repr. in Ger. em.* 42. 6.—*J. B.* ii. 512. 2.—*Flower, Mont.* 68.—*Bloſſom, Scheuch.* 3. 13. *B.*

Two branches ſpring from the firſt joint of the panicle; only 1 from the others, and that generally undivided. *Huſks* ſmooth. *Petal*, the larger one woolly, except at the top, from which riſes the awn. Baſe of the *awn* twiſted like a rope; above the twiſted part it is bent; and above the bend it begins to be hairy. The feathery part of the awn is many times the length of the whole panicle; but the naked part not more than half as long. SCOP.—*Awns* from 6 to 12 inches long, or more; ſet with very fine, white, ſoft, pellucid, diverging hairs. WITH.

Mountains. [Near Kendal, Weſtmoreland. Mr. ALDERSON.]
P. July. Aug.

97. AVE'NA.

97. AVE'NA. Oat.

Pl. II. fig. 21.

EMPAL. *Huſk* 2 valves; frequently containing ſeveral florets looſely collected. *Valves* large, looſe, ſpear-ſhaped, diſtended; ſharp; without awns.

BLOSS. 2 valves. *Inferior valve* the ſize of the huſk, but harder; ſomewhat cylindrical, diſtended, tapering towards each end, ſending out from its back an awn, ſpirally twiſted, and bent back as if jointed.

CHIVES. *Threads* 3; hair-like. *Tips* oblong; forked at each end.

POINT. *Seed-bud* blunt. *Shafts* two; reflected; hairy. *Summits* ſimple.

S. VESS. The *Bloſſom* ſhuts cloſe upon, and adheres to the ſeed without opening again.

SEED. Single; ſlender; oblong; tapering at each end; marked with a furrow lengthways.

ESS. CHAR. *Bloſs.* 2 *valves, containing ſeveral florets. Awn upon the back; twiſted.*

OBS. The twiſted and jointed awn iſſuing from the back of the bloſſom, conſtitutes the eſſential character.

tall AVE'NA *ela'tior*. Panicled. Two florets in each empalement; one containing chives and pointals, nearly awnleſs; the other with only chives, awned.—

Schreb. 1. (α)—*Curt.* iii. 32.—*H. ox.* viii. 7. 38.—*Park.* 1176. 1.—*C. B. th.* 18.—*J. B.* ii. 456.—*Ger. em.* 23.—*Fl. dan.* 165. (α)—*Branch of the panicle, &c. Leers* 4. 4.—*Scheuch.* 4. 27 *and* 28.—(*H. ox.* viii. 7. 37, *appears to be Agroſtis arundinac. and Lob. adv.* 2. 2, *is not the plant.*)

Empal. lower valve much ſmaller. SCHEUCH. Mr. HOLLEFEAR.

—Frequently only 1 floret awned. Mr. WOOD.

fibrous. α. Baſe of the ſtraws not knobbed. (*Figures marked* α.)

knobbed. β. Baſe of the ſtraw knobbed. (*The reſt of the figures.*)

Empal. outer valve ſmaller, and ⅓ ſhorter than the other. *Florets* 1 ſitting, and the awn fixed near to the baſe; the other on a ſhort fruit-ſtalk, and the awn fixed neareſt to the end. *Bloſs.* hairy at the baſe. *Seed-buds* downy. The *ſitting floret* generally barren. *Straw* about 5 feet high, with cylindrical woolly joints. *Leaves* rough. *Root* a double pear-ſhaped bulb, one above the other. Grows in damp ground. WITH.

Tall oat-graſs.

Meadows,

Meadows, paſtures, and hollow-ways. P. June. Aug.
Cows, Sheep, and Goats eat it.—The roots are ſometimes very troubleſome to the farmers in arable lands. ST.

AVE'NA *nu'da* Panicled. Empal. with 3 florets. Receptacle longer than the empalement. Petals awned upon the back. The 3d floret awn-leſs.— *naked*

H. ox. viii. 7. 4.—*Ger.* 68. 2, *repr. in C. B.* 471, *and cop. in J. B.* ii. 433, *cap.* xxi.—*Dod.* 511. 2, *repr. in Ger. em.* 75. 2, *ill cop. in Park.* 1134. 2.

The ſeeds when ripe fall out of the huſks. LINN.—*Little ſpikes* with 2 or 3 florets. Awn neither twiſted nor jointed. HALL.
Staffordſhire. PLOT.—Cultivated in Cornwall. RAY. A. July.
Pilcorn. Pillis.
This is nearly as good as the cultivated oat; it will make gruel or oat cake, and feed cattle as well as that. Ray ſays it ſells in Cornwall at the price of wheat.

AVE'NA *fat'ua.* Panicled. Empal. with 3 florets, all awned, and hairy at the baſe.— *bearded*

Leers 9. 4, *little ſpike, &c.—H. ox.* viii. 7. 5, *empal. hairy, and only* 1 *of the florets awned.—Barr.* 75. 2, *is a pretty exact repreſentation of it, but, from the ſeparate little ſpike, which is* 1½ *inch long, I ſuſpect it will prove to be the A. ſterilis.—C. B.* 149. 2. 3. 4, *branch of the panicle, &c.—(Schreb.* 15.—*Scheuch.* 5. 1.—*Dod.* 539. 2, *repr. in Lob. obſ.* 20. 3; *Ger. em.* 77, † *and cop. in Park.* 1148. 4; *and J. B.* ii. 433, *fig. the laſt, appear to me to be the Avena ſterilis of Linn. and Virgil. In all of them the branches of the panicle are undivided as in the ſterilis.—C. B.* 149. 1, *is Andropogon gryllus.)*

Taller than the *Avena ſativa.* RAY. ST.——*Leaves* bare. *Empal.* whitiſh green. HALL. ST.—*Fruit-ſtalks* of the florets hairy. *Florets* hairy at the baſe and on the back; the third floret often wanting. *Bloſs. outer valve* ragged at the end. *Awn* twice as long the bloſſom; rough. *Seed* hairy. LEERS. ST.—*Leaves* rough downwards. *Panicle* pyramidal; its branches expanding; ſome of them dividing towards the top. *Little ſpikes* turning whitiſh or yellowiſh. *Empal.* larger than the florets, 11 lines long, or ſomewhat leſs. *Bloſs. inner valve* edged with a fine fringe. POLLICH. ST.——*Panicle* branches from 1 to 6 at a knot. *Empal. valves* 9 to 11 lines long, ribbed, number of ribs uncertain, from 9 to 11; *outer* generally a line ſhorter than the inner, containing 2 florets, both awned. *Bloſs.* with tufts of hairs at the baſe. *Outer valve* even, the ribs not being prominent; beſet with whitiſh hairs about the inſertion of the awn,

and ſome few ſcattered ones between it and the baſe; ſometimes only 1 or 2 hairs at the inſertion of the awn; ſlightly cloven at the end, but readily ſeparable to the depth of 2 lines; fawn coloured when ripe. *Awn* bent aſide, about a line above the point of the valve. ST.

(*Gram. avenac. lanuginos. utriculis*, &c. SCHEUCH. 241. *n.* 2, accords in its admeaſurement, but differs in its leaves being woolly. *Gramen. avenac. utriculis lanugine flaveſc.* SCHEUCH. 239, though referred to by Linn. cannot be the *A. fatua*, as in that the 2 lowermoſt florets only are awned. The deſcription of its ſtructure, and the admeaſurements, correſponds moſt exactly with my ſpecimens of the *A. ſterilis*. Scheuchzer ſpeaks of his plant as a native of the South of Italy. Barrelier's plant was gathered near Rome. The deſcr. of J. Bauh. and of the H. ox. accord with Scheuch. ST.)

Bearded wild oats. Hover.

Corn fields. A. July. Aug.

Horſes, Sheep, and Goats eat it.—The awns are uſed for Hygrometers.—Sometimes ſo prevalent amongſt barley as almoſt entirely to choke it. It may be extirpated by repeated fallowing, or laying down the land in graſs.

rough AVE'NA *pubeſcens*. Flowers almoſt forming a ſpike. Empal. with 3 florets, bearded at the baſe. Leaves flat, downy. LINN.—Panicle branched. Receptacles bearded. HUDS.—Fruit-ſtalks of the florets hairy down to the baſe. ST.

Leers 9. 2.—*Ray* 21. 2.—*Scheuch.* 4. 20.—*Mont.* 65, *little ſpike.*

Very cloſely allied to the *A. pratenſis*, but the leaves not rolled in. LINN.—*Florets* ſometimes only 2, ſometimes 4, and, in the more luxuriant plants, ſometimes 5. SCHEUCH.—*Fruit-ſtalks of the florets* covered with a cloſe white down, which is ſhort towards the baſe, but at the point next the baſe of the floret long. SCHEUCH. ST.—*Spiked panicle* of a purpliſh ſhining ſilvery appearance.

Dry and chalkey ſoils. [In Norfolk. Mr. WOODW.] P. June.

yellow AVE'NA *flaveſcens* Panicle looſe. Empal. ſhort, 3 florets in each. All the florets awned.—

Curt. iii. 35, *left hand figure out of bloſſom.*—*Schreb.* 9, *right hand figure not yet in bloſſom.*—*Leers* 10. 5.—*Scheuch.* 4. 18, *branch of the panicle.*—*H. ox.* viii. 7. 42, *panicle too cloſe and ſtiff.*—*Mont.* 79, *too ſmall.*

Straws ſmooth. *Leaves*, upper ſide hairy, the lower ſmooth. *Sheaths* generally more or leſs hairy, eſpecially towards the baſe, but ſometimes, and even in ſpecimens of the larger ſize, ſmooth. *Empal.* ſometimes containing only 2 florets. SCHEUCH. ST.—In none of

of my ſpecimens is the under ſurface of the *leaves* hairy. *Empal.* ſometimes containing 1 fertile, and 1 abortive floret. St.—Panicle greeniſh yellow. Straw about 18 inches high. Ray.

Meadows and paſtures, common. P. July.

Cattle are not fond of it.

AVE'NA *praten'ſis*. Almoſt ſpiked. Florets 5 in each empalement. Linn.—Leaves naked; rolled in. Panicle undivided. Huds.——Fruit-ſtalks of the florets bare towards the baſe. St. *meadow*

Leers 9. 1.—*Ray.* 21. 1.—*Vaill.* 18. 1.—*H. ox.* viii. 7. 21, *awns too ſtraight.*—*Mont.* 66, *a little ſpike.*

Leaves ſmooth underneath. Linn.—*Empal.* rough downwards. *Lower fruit-ſtalks* in pairs, one of them longer, ſupporting 2 little ſpikes. Leers.—All the *little ſpikes* ſometimes ſingle, but generally the *lowermoſt fruit-ſtalks* dividing into 2. St.—*Awns* bent back. Ray.—*Leaves* channelled, ſmooth. *Panicle* compact. *Florets* ſmooth; the upper one in each little ſpike barren.

Heaths, and high chalkey lands. [Norfolk, very frequent. Mr. Woodward.—King's Park, Edinburgh. Mr. Smith.] P. July.

Horſes, Cows, Sheep, and Goats eat it.

AVE'NA *ſtrigo'ſa*. (Schreb.) Panicled. Empalement containing 2 florets. Bloſſoms ſmooth at the baſe; outer valve ending in 2 awns ſhorter than the valve, and with a bent awn from the back. St. *ſcrannel*

Empal. the length of the florets. *Florets* on fruit-ſtalks. *Terminating awns* very fine, at the points white. *Awn from the back* twice as long as the florets, ſtrong, brown at the baſe. I cannot find it deſcribed by any writer. Schreb. *ſpic.* St.—*Straw and leaves* bare. *Panicle* rather ſlightly nodding, than contracted, as Schreber. *Fruit-ſtalks* from 1 to 4, rough. Retz. *obſ.* 1. 13. St. —— *Empal. valves* ribbed; ribs from 7 to 10, and bordered on each ſide with a row of minute dots; *lower valve* ſomewhat ſhorter, from 6 to 7 lines long, *upper* 8 lines long. *Bloſs. outer valve* ſleek and ſmooth below, about the inſertion of the awn in ſome ſpecimens hairy with long white hairs, above the awn ſcored, rough, cloven at the end to within a line of the inſertion of the awn, ſegments terminating in awns; *awns* purple, whitiſh at the end. *Seeds* hairy.

Specimen in Dr. Witherings's herbarium, compared with others from a friend of Prof. Schreber's, and the King's garden, Paris. St.

Amongſt oats, barley, and ſometimes rye. A. Summer. Schreb. Retz.

ADDITIONS to the GENUS AVENA.

* 1. *Empalements containing* 1 *floret.* St.

brown *Avena canina.* *Agroſtis canina*, which ſee.

alpine *Avena alpina.* St. *Agroſtis alpina*, which ſee.

ſhort-awned *Avena vinealis.* St. *Agroſtis vinealis*, which ſee.

panick *Avena lendigera.* St. *Milium lendigerum*, which ſee.

* 2. *Empalements containing* 2 *florets.* St.

ſilver *Avena caryophyllea.* Panicle ſtraddling. Empalements with 2 florets, awl-ſhaped. Wiggers. St.—*Aira caryophyllea*, which ſee.

early *Avena præcox.* St. Panicle contracted. Empalements with 2 florets. Awns awl-ſhaped. Wiggers.—*Avena puſilla.* Wiggers.—*Aira præcox*, which ſee.

grey *Avena caneſcens.* Panicle cloſe and ſtraight. Empalements with 2 florets. Awns club-ſhaped. Wiggers. St.——*Aira caneſcens*, which ſee.

heath *Avena flexuoſa.* St. Panicled empalements with 2 florets. One of the valves of the bloſſom awned, woolly at the baſe. Wiggers. St. *Aira flexuoſa*, which ſee.

mountain *Avena montana.* Wiggers.—*Aira montana*, which ſee.

99. ARUN'DO. Reed.

Pl. II. fig. 22.

Empal. *Huſk* 2 upright valves, containing 1 or more florets. *Valves* oblong, tapering; without awns. One ſhorter than the other.

Bloss. 2 valves. *Valves* as long as the empal. oblong, tapering; with ſoft and tender hairs riſing from the baſe, and nearly as long as the bloſſom.

Chives. *Threads* 3; hair-like. *Tips* forked at each end.

Point. *Seed-bud* oblong. *Shafts* 2; hair-like; reflected; woolly. *Summits* ſimple.

S. Vess. The bloſſom adheres to the ſeed without opening.

Seed. Single; oblong, tapering towards each end, furniſhed with long feathers at the baſe.

Ess. Char. *Empal.* 2 *valves. Florets crowded together, encompaſſed with wool.*

common ARUN'DO *phragmi'tes.* Panicle flexible. Florets 5 in each empalement.—

H. ox. viii. 8. 1.—*Dod.* 602, *repr. in Lob. obſ.* 28. 1, *Ger. em.* 36. 1, *and cop. in Park.* 1209. 1, *and J. B.* ii. 485. 1.—*C. B. th.* 269.

th. 269, *in the* 2 *laſt ſpikes ill done.*—*Trag.* 674. 2.—*Branch of the panicle, &c. Leers* 7. 1.—*Spike, Mont. Arundo B. E.*—*Floret, Scheuch.* 3. 14. *D.*

Florets 4 and 5, ſmooth, but ſurrounded at the baſe with *down* about the length of the florets, and which riſes from the ſpike-ſtalk, and not from the florets themſelves. SCHEUCH. ST.—*Empal.* ſometimes containing only 1 floret. *Bloſs.* one of the valves ſometimes awned! SCOP.—*Seed-bud* bare. *Seeds* incloſed by the bloſſom, as Linnæus; not ſurrounded by long hairs, as Leers has erroneouſly repreſented it. ST.

Rivers, lakes, ditches; very common. P. July.

Horſes, Cows, and Goats eat it. Sheep refuſe it.

The panicles are uſed by the country people in Sweden to dye woollen green. The reeds are much more durable than ſtraw for thatching. Screens to keep off the cold winds in gardens, are made of them; and they are laid acroſs the frame of wood-work, as the foundation for plaiſter floors.

ARUN'DO *epigejo's.* Panicle upright. One floret in each empalement. Leaves ſmooth on the under ſide.—*ſmall*

Fl. dan. 280.—*Barr.* 364.?—*Floret, Mont.* 85. (86. *does not accord with my ſpecimens.*)

Straw 2 feet high, thicker than thoſe of wheat. *Leaves* of the breadth of one's finger. *Panicle* cloſe, upright. LINN.——*Leaves* green, 2 or 3 lines broad, ſmooth underneath, beſet above with very ſhort ſcattered hairs. *Flowers* 1½ or nearly 2 lines long. *Empal. valves* nearly equal. *Bloſs.* ſomewhat ſhorter than the empal. when dry, whitiſh. *Down* riſing nearly even with the empalement. SCHEUCH. ST.—*Leaves* much narrower than thoſe of the A. calamagroſtis. *Empal.* briſtle-ſhaped. *Bloſs.* not woolly. Mr. WOODW.—*Empal.* flexible, nearly membranaceous, microſcopically rough; *valves* awl-ſpear-ſhaped; the *outer* ¼ line longer than the other. *Bloſs.* 1 line long, membranaceous, tapering to a point, point cloven, with an exceedingly minute *awn* riſing from the bottom of the cleft, often but juſt taller than the end of the valve. *Down* from the baſe of the bloſſom. ST.

Dry hills, banks, and corners of fields. LINN.——Woods and moiſt hedges. HUDS.—[On the ſide of a ditch on the borders of Aqualate Meer, Shropſhire. ST.—Eanham Wood, Norfolk. Mr. WOODWARD.] P. July.

ARUN'DO *Calamagro'ſtis.* Empalements ſmooth; 1 floret in each. Bloſſoms woolly. Straw branched.— *wood*

Scheuch. pr. 5.—*Ger. em.* 9. 1, *cop. in J. B.* ii. 476. 1.—*Park.* 1182. 4.—*H. ox.* viii. 8. 2.—*C. B. th.* 95, *branches of the right hand panicle too diſtant.—Florets, Scheuch.* 3. 3. *(Fl. dan.* 280, *referred to in the Syſt. Veg. cannot be the ſame plant with Scheuch. pr.* 5, *to which they alſo refer; and appears to me to be the A. epigejos.)*

ſhort-huſked 2 *Barr.* 18. 1.

Obs. *No.* 1. *are figures of Gram. arund. panic. molli. &c. Scheuch. but equally repreſent our plant.*

Sometimes riſes to the height of a man, and, what is very uncommon in a graſs, throws out undivided branches from the boſom of the leaves. Linn.—Specimens ſent by Linnæus had *branched ſtraws*, but in the deſcription of Scheuch. referred to by Linnæus, no notice is taken of this circumſtance. Scop.—I have never ſeen the ſtraw branched. Huds.—*Straw* firm, from 3 to 5 feet high. *Leaves* without hairs, upper ſurface ſmooth, but the under, as alſo the edges, rough to the hand drawn downwards; ſtiff, and arid. *Panicle* contracted, ſometimes partly cheſnut, and partly green, on the opening of the flowers a mixture of green, cheſnut, and ſilky white, and when out of flower of a yelloviſh brown. *Empal. valves* narrowing to a point, almoſt entirely equal, and about 2 lines long. *Bloſs.* membranaceous, gloſſy, white. *Down* about the length of the empalement. Scheuch. St.—*Leaves*, ſome flat, others with their edges rolled in, and ſharp-pointed at the end. *Panicle* before it comes into flower upright, afterwards ſomewhat nodding, the branches and their ſub-diviſions rather pointing one way. *Empal.* ſtiff, green, keeled, keel rough, ſlightly curved ſideways. *Bloſs.* 1 line long, awned, tapering to a point, point cloven. *Awn* hair-like, ſtraightiſh, inſerted above the middle of the back, extending ⅓ line beyond the end of the valve. In external appearance it very much reſembles the Dactylis glomerata. St.

Gram. paniculat. &c. minus. Scheuch. *p.* 122. St.*

Moiſt woods and hedges. [Ripton Wood, Huntingdonſhire, Mr. Woodward.] P. June. July.

Goats eat it. Cows are purged by it.

ſea ARUN'DO *arena'ria*. Empalements with 1 floret in each. Leaves rolled in at the ſides, ſharp-pointed, and pungent.—

* (Not *Gram. arund. panic. molli.* Scheuch. *gram. p.* 122. *t.* 3. *f.* 3, referred to by Linnæus, but judiciouſly omitted by Hudſon. A ſpecimen of it from the ſon of Prof. Jacquin induces me to believe them to be only varieties, differing merely in the ſize of the huſks, the inequality of the valves of the empalement being often equally ſmall in both. St.)

H. ox.

H. ox. viii. 4, *row.* 3. 16.—*Clus.* ii. 221. 1, *repr. in Lob. obſ.* 45. 3, *and cop. in Park.* 1198. 3, *and J. B.* ii. 512, 1.—*Ger.* 38. 3, *repr. in C. B.* 67.—*Ger. em.* 42. 3.—*Florets, Scheuch.* 3. 8. *A. B. C.*—*Mont.* 92.

This plant probably originated from the A. epigejos, impregnated by the *duſt* of the Elymus arenarius. LINN.

Leaves ſcored within, ſmooth and gloſſy without, when growing ſometimes expanded. *Bloſs.* with a ſhort down at the baſe. SCHEUCH. ST.—*Empal. valves* nearly equal, ſpear-ſhaped, compreſſed, keeled; the *outer* the broadeſt, marked with 1 rib; the *inner* with 3. *Bloſs.* compreſſed, roughiſh, dull, of the ſame texture as the empalement; *outer valve* marked with 5 ribs, the middlemoſt ending in a very ſhort ſpit-point, the baſe fringed all round with white, ſtraight, ſtiff hairs, 4 times ſhorter than the bloſſom. *Scale* at the baſe of the inner valve, awl-ſhaped, fringed with the ſame hairs, analogous to the outer bloſſom of the Phalaris, or poſſibly the rudiment of a 2d fruit-ſtalk. Has a much nearer affinity in habit as well as ſtructure to the Phalaris, than to the Arundo. ST.

Sea matweed. Marram. Helme.

Sea ſhore. P. June. July.

It grows only on the very drieſt ſand upon the ſea ſhore; and it prevents the wind carrying the ſand from the ſhore and diſperſing it over the adjoining fields: which is not unfrequently the caſe where this Reed is wanting. Many a fertile acre hath been covered with unprofitable ſand and rendered entirely uſeleſs; which might have been prevented by ſowing the ſeeds of this plant upon the ſhore. The Dutch have profited by the knowledge of this fact. LINN.

The country people cut, and bleach it for making matts. Where it is plentiful, houſes are thatched with it.

It is planted on ſome of our flat coaſts in Norfolk to repel the ſea. As ſoon as it has taken root, a ſand hill gathers round it; and, it is probable, that ſome of our ſandy cliffs have been entirely formed by it. Mr. WOODWARD.

101. LO'LIUM. Darnel.

Pl. II. fig. 27.

Common *Receptacle* lengthened into a ſpike. The florets pointing from 2 oppoſite lines, and each preſſed cloſe to a bend in the ſtraw.

EMPAL. *Huſk* 1 valve, awl-ſhaped, permanent; ſtanding oppoſite to a bend in the receptacle.

BLOSS. 2 valves. *Inferior valve* narrow; ſpear-ſhaped; rolled inwards; tapering; as long as the empalement. *Superior valve* ſhorter, more blunt, ſtrap-ſhaped, concave on the upper part.

CHIVES. *Threads* 3; hair-like; ſhorter than the bloſſom. *Tips* oblong.

POINT. *Seed-bud* turban-ſhaped. *Shafts* 2; hair-like; reflected. *Summits* downy.

S. VESS. None. The bloſſom encloſes the ſeed until it is ripe.

SEED. Single; oblong; compreſſed; convex on one ſide, flat and furrowed on the other.

ESS. CHAR. *Cup* 1 *leaf, fixed, containing ſeveral florets.*

OBS. The angles in the ſpike-ſtalk lying in the ſame plane with the florets, ſupply the defect of inner valves to the empalements. LINN.

red LO'LIUM *peren'ne*. Spike awnleſs. Little ſpikes longer than the empalement. HUDS. —— Spike awnleſs. Little ſpikes compreſſed, of ſeveral florets. LINN.

Schreb. 37.—*Leers* 12. 1, *ſpike.*—*Fl. dan.* 747.—*Dod.* 540. 1, *repr. in Lob. obſ.* 21. 1; *Ger. em.* 78. 2; *cop. in Park.* 1145. 2; *and C. B.* 128.—*Math.* 1023.—*Scheuch.* 1. 7. *A. B. C. part of the ſpike, &c.*—*Mont.* 19.—*(Ger* 71. 2, *not the plant.)*

ſlender β. HUDS.—Spike awnleſs, cylindrical. Little ſpikes with 3 florets. LINN.

Lolium perenne tenue. HUDS.—*Lolium tenue.* LINN.

cluſtered γ. LINN. ST.—*H. ox. ib. n.* 3.—*Scheuch. pr.* 2. 1—*Scheuch.* 1. 7. *D.*

branched δ. HUDS.—*Leers ib.* ✱—*H. ox. ib. n.* 4.—*Park.* 1146. 7.

Florets 3 or 4 in each little ſpike. *Larger valve* of the bloſſom cloven, and ſometimes furniſhed with a ſoft ſhort awn. LINN.—*Empal.* a ſingle concave huſk, tapering to a point. *Bloſs.* valves both of the ſame length. *Tips* cloven at each end. *Seed-bud* placed between the upper valve of the bloſſom, and 2 ſmall, ſpear-ſhaped, white,

white, ſemi-tranſparent ſubſtances, which, perhaps, Linnæus would call honeycups. *Shafts* none. *Summits* woolly or downy. *Florets* 6 or 7 in each little ſpike. *Larger valve* of the bloſſom neither cloven nor awned. WITH.

Road ſides; dry paſtures. P. June.

Ray graſs. Rye graſs. Crap.

It makes an excellent hay upon dry chalkey or ſandy ſoils. It is cultivated with advantage along with clover, and ſprings earlier than the other graſſes; thereby ſupplying food for cattle, at a ſeaſon when it is moſt difficult to be obtained.

Cows, Horſes, and Sheep eat it. Goats are not fond of it.

LO'LIUM *temulen'tum*. Spike awned. Little ſpikes compreſſed; containing ſeveral florets. LINN. —— Spike ſomewhat awned. Little ſpikes as long as the empal. HUDS. *white*

1. ST. *Schreb.* 36.—*Fl. dan.* 160.—*Leers* 12. 2, *ſpike.*—*H. ox.* viii. 2, *row.* 2. 1. *n.* 2.—*Dod.* 538, *repr. in Lob. obſ.* 21. 2; *Ger. em.* 78. 1; *and cop. in Park.* 1145. 1.—*Ger.* 71, *repr. in C. B. th.* 121.—*Muſ. ruſt.* vi. 1. 1.—*Scheuch.* 1. 7. *E. F. and Mont.* 18, *little ſpike.* awned

2. ST. *H. ox.* viii. 2, *row.* 2. 1. *n.* 1.—*Math.* 411.—*J. B.* ii. 437. awnleſs

I have found it oftener without awns than with. Mr. WOODW.

Corn fields. A. July. Aug.

The ſeeds, mixed with bread-corn, produce but little effect, unleſs the bread be eaten hot; but, if malted with barley, the ale ſoon occaſions drunkenneſs. LINN.——Made into bread, with a ſmall proportion of wheat, and eaten repeatedly, produced vomiting, purging, violent cholics, and death. Vol. 67. M. Review. p. 559.—Sheep are not fond of it.

LO'LIUM *bromoi'des*. Panicle undivided, pointing one way. Little ſpikes awned. HUDS. *ſea*

Ray. 17. 2.

Root fibrous. *Straws* numerous, from 6 to 12 inches high; oblique, cylindrical, ſmooth, a little branched. *Leaves* ſword-ſhaped, a little rolled inwards, ſharp, naked, much ſhorter than the leaf-ſtalk. *Leaf-ſtalk* ſheathing, bellying, naked. *Props* membranaceous, bluntiſh. *Little ſpikes* on fruit-ſtalks, ſtrap-ſhaped; florets from 4 to 8 in each. *Fruit-ſtalks* ſhort, thick, rough. *Huſk* 1 valve, ſtrap-ſhaped, concave, awned. *Bloſs.* 2 valves, unequal. *Outer valve* larger, ſtrap-ſhaped, keeled, awned, rough. *Inner valve* ſmaller, flat, ſtrap-ſhaped, awnleſs. *Awn* twice the length of the floret. HUDS.

Wild Oat-graſs, or Drank.

Sea coaſts, in looſe ſand. A. May. June.

ROTTBOL'-

ROTTBOL'LIA.* Linn. the Son. *Hard-graſs.*

Pl. II. fig. 31.

Spike-ſtalk cylindrical, thread-ſhaped, very ſtraight, jointed. *Joints* hollowed out downwards towards the joint below with an oblong excavation. *Flowers* encloſed within the excavated hollows of the ſpike-ſtalk, ſolitary, or in pairs; one with only chives, the other with chives and pointal.

EMPAL. *Huſk* of 1 valve. (2 valves. Sp. pl. ST.) *Valve* ſimple, or divided into 2, griſtly, lopped at the baſe, cloſing up the hollow like a kind of cover, joined to the ſpike-ſtalk by a moveable articulation, egg-oblong, pointed, flat.

BLOSS. *Huſk of the floret with chives and pointal* of 2 valves; *valves* ſpear-ſhaped, pointed, concave, unequal, membranaceous, ſhorter than the empalement. *Huſk of the floret with only chives*, if ſuch preſent, ſimilar to the former.

CHIVES. *Threads* 3; hair-like. *Tips* ſtrap-ſhaped, forked at each end.

POINT. *Seed-bud* oblong, ſtrap-ſhaped, lopped, furniſhed with a little head, convex on one ſide, concave on the other. *Shafts* 2, thread-ſhaped. *Summits* feathered, or pencil-ſhaped.

S. VESS. None, except the hollows in the joints cloſed by the huſk of the empalement which contain the ripe ſeed, till the ſpike-ſtalk falls off joint by joint.

SEED. One, the ſhape of the ſeed-bud.

ESS. CHAR. *Spike-ſtalk jointed, roundiſh; in ſeveral ſpecies thread-ſhaped. Empal. egg-ſpear-ſhaped, flat, ſimple, or divided into 2. Florets alternate, on a zigzag ſpike-ſtalk.* LINN. THE SON.

OBS. What is above deſcribed as a ſpike-ſtalk is in fact the ſpike. It might have been added too, that in ſome ſpecies it is flatted; neither ought the ſpike-ſtalk to form a generic characteriſtic. Were it admitted, we ſhould be obliged to divide the *Panicum* and *Cynoſurus* into 4 genera. ST.

ESS. CHAR. Flowers with chives and pointal.

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* In memory of Chriſtian Friis Rottboll, profeſſor of botany at Copenhagen, (See catalogue of authors.) LINN. THE SON.

Empal.

Empal. Huſk ſolitary, divided into 2. Bloſs. Huſk placed contrariwiſe to that of the empalement. Chives 3. Shafts 2. Seed 1.

Flowers with only chives.

Empal. Bloſſom and chives as above. HUDS.

OBS. *Empal.* evidently of 2 leaves. *Bloſs. valves* parallel to the larger of the valves of the empalement.——Mr. Hudſon, with the above new character, has retained the name of *Ægilops*, which ought, however, to be applied to the genus which comprehends the Ægilops of the old authors. ST.

ESS. CHAR. *Empal. 2 contiguous valves, both placed outwardly, ſolitary. Bloſs. of 2 valves, membranaceous, awnleſs.* ST.

OBS. In the diſpoſition of its 2 leaved empalement it correſponds with *Ægilops*, but differs in its bloſſom, which, inſtead of being griſtly and awned, is membranaceous as in the other *Rottbollias*, in which, however, the empalement is of 1 valve as in *Lolium*. Thus, if its claim to a diſtinct genus ſhould be inadmiſſible, we may be allowed to conſider it as forming the connecting link between the two. ST.

ROTTBOL'LIA *incurva'ta*. Spike cylindrical, awl-ſhaped. Huſk of the empal. awl-ſhaped, contiguous, divided into two. LINN. THE SON. *ſuppl.* 114. *ſea*

H. ox. viii. 2. 8.—*Park.* 1146.—*Barr.* 5 *and* 6.—*Scheuch.* 2. 1, *ſpike.*

Spike without awns, ſmooth, thread-ſhaped, crooked; but little thicker than the ſtraw. *Empal.* of 2 valves; both placed outwardly. *Bloſs.* valves placed contrariwiſe to thoſe of the empal. LINN.—*Empal. valves* awl-ſpear-ſhaped, ſcored on the outſide juſt longer than the joint, to the baſe of which they are fixed, 1 juſt ſenſibly narrower, and its edge lapping over that; the *inner* open when the bloſſom is in flower of the other. *Bloſs.* contained between the hollow of the joint and the innermoſt of the valves of the empalement; *valves* equal in length, browniſh white, the inner ſomewhat narrower. *Flowers*, all which I have ever examined, had a pointal as well as chives. ST.

Ægilops incurvata. LINN.

Sea coaſt, [Salt Marſh, below King's Weſton, near Briſtol. ST.] P. July. Aug.

102. EL'YMUS. Lime-grafs.

Pl. II. fig. 26.

Common *Receptacle* lengthened into a ſpike.

EMPAL. *Huſk* 4 leaves, pointing from 2 oppoſite lines, 2 of the leaves which are awl-ſhaped, belonging to each little ſpike.

BLOSS. 2 valves; *outer valve* large, tapering; furniſhed with an awn. *Valve* flat.

CHIVES. *Threads* 3; hair-like; very ſhort. *Tips* oblong, forked at the baſe.

POINT. *Seed-bud* turban-ſhaped. *Shafts* 2; ſtraddling, hairy, bent inwards. *Summits* ſimple.

S. VESS. The bloſſom incloſes the ſeed.

SEED. Single; ſtrap-ſhaped; convex on 1 ſide; covered.

ESS. CHAR. *Empalement lateral, of 2 valves, containing ſeveral florets; incorporated.*

OBS. The empalement may be conſidered as a huſk of 2 leaves, and 2 of theſe empalements growing together.

ſea EL'YMUS *arena'rius*. Spike upright, compact. Empalements woolly; longer than the floret.—

Schreb. 40.—*Gmel.* i. 25.—*(Fl. dan.* 847, *is ſome other graſs. Mr. Woodw. as is evident from its minute bloſſom.—Cluſ.* ii. 221. 2, *cop. in C. B.* 68. 2;—*Ger.* 23, *repr. in C. B. th.* 14, *cop. in Park.* 1277. 1, *J. B.* ii. 478. 2, *and H. ox.* viii. 2. 11;—*Pluk.* 33. 3;—*and Scheuch.* 3. 17. *D. not the plant.—In Mont.* 17, *the florets are more than two, and longer than the empalement.)*

Spike upright, long, woolly. *Little ſpikes* 2 together, ſtraight, containing 2 florets, awnleſs. *Leaves* like thoſe of REEDS, bluiſh green, or whitiſh; rolled inwards and ſharp-pointed. LINN.

Sea coaſt, in looſe ſand. P. July. Aug.

It reſiſts the ſpreading of the looſe ſand on the ſea ſhore. Is it not capable of being formed into ropes as the Stipa tenaciſſima is in Spain?

Cows, Horſes, and Goats eat it. Sheep refuſe it.

dogs EL'YMUS *cani'nus*; *Triticum caninum*. HUDS. &c. which ſee.

wood EL'YMUS *europæ'us*. Spike upright. Little ſpikes 2 florets in each; as long as the empalement.—

Scheuch. pr. 1. 1.—*Park.* 1144. 7. (1)—*Mont.* 94, *floret, ill done.*

Very

Very much reſembles the *Elymus virginicus*, but the leaves of the *fence* not ſcored, and *florets* 2. *Florets*, together with their awns, longer than the fence. LINN.—Evidently an *Elymus*. Mr. WOODW. ST.—*Fence*, the 2 *leaves* proceeding from an exceedingly ſhort pedicle, diſtinct from that of the floret. SCHEUCH. ST.—*Leaves of the fence* equal, ſomewhat ſcored towards the end. *Florets* often 2, and both fertile; the *lower* on an exceedingly ſhort fruit-ſtalk; the *upper* on a fruit-ſtalk, nearly half its length, with the rudiment of a 3d fruit-ſtalk at the baſe of the inner valve. Haller, Murray, and Hudſon have made it a *Hordeum*, not reflecting, that in the *Elymus philadelph. and canadens.* the lower little-ſpikes are often found in threes; and, I may alſo add, with a treble fence of 2 leaves as in the Hordeum. Indeed, none of them ſeem ever to have found it with *little ſpikes of* 2 *florets*, except Mr. Hudſon, who ſpeaks of the 2d floret as being abortive. In my ſpecimens the ſeeds of both were nearly arrived to maturity.—In ſtructure it is an *Elymus*, in habit it approaches rather more to the *Hordeum*. In truth it ſeems the connecting link between theſe two genera. Floret generally ſingle. ST.—*Hordeum ſylvaticum*. HUDS. which ſee.

Woods in chalkey ſoil. [Rocks oppoſite Matlock Baths; Ripton Woods, Huntingdonſhire. Near Berkhamſtead, Herts. In the North, frequent. Mr. WOODWARD.] P. June.

104. HOR'DEUM. Barley.

Pl. II. fig. 25.

Common *Receptacle* lengthened into a ſpike.

EMPAL. Huſk of 6 leaves, containing 3 florets. *Florets* ſitting. *Leaves* ſtrap-ſhaped, tapering, diſtant; in pairs.

BLOSS. 2 valves. *Lower valve* longer than the empal. bellying; angular; egg-ſhaped, but pointed; ending in a long awn. *Inner valve* ſmaller; flat; ſpear-ſhaped. (*Honeycups* ſpear-ſhaped. POLLICH.—Membranaceous, the length of the ſeed-bud. ST.)

CHIVES. *Threads* 3; hair-like, ſhorter than the bloſſom. *Tips* oblong.

POINT. *Seed-bud* between egg and turban-ſhaped. *Shafts* 2; woolly; reflected. *Summits* like the ſhafts.

S. VESS. The bloſſom grows round the ſeed without opening.

SEED. Single; oblong, bellying, angular, tapering at each end; with a furrow on one ſide.

Ess.

Ess. Char. *Empal. growing by threes; fixed sideways; of 2 valves, containing 1 floret.*

Obs. In some species all the 3 florets that grow together are fertile, and have both chives and pointals; but, in others, the *middle* floret alone is fertile, and furnished with chives and pointals, the *lateral* florets having only chives.

wall HOR'DEUM *murī'num.* Lateral florets with awns and chives. Husks of the intermediate florets fringed.—*Fl. dan.* 629, *with florets magnified.—Lob. obs.* 18. 1, *cop. in Park.* 1147.—*H. ox.* viii. 6. 4, *Gr. fecalin.—Ger.* 66. 2, *repr. in C. B.* 134.—*Ger. em.* 73, *uppermost figure.—Barr.* 111. 1.—*Mont.* 90, *the middlemost floret.*

Middle floret sitting; *lateral* ones on fruit-stalks about a line long. *Fence*, outer leaf somewhat longer. Scheuch. St.—*Blos. inner valve* with a small bristle at the base. Pollich. St.—*Middle floret; leaves of the fence* strap-spear-shaped, scored. *Lateral florets, inner leaf of each fence* awl-spear-shaped, fringed; *outer* bristle-shaped, with a few hairs towards the base; *chives* often imperfect. *Blos. outer valve hairy within. Honeycups* hairy. St.

Wall Barley. Way Bennet. Wild Rye. Rye-grass.

Walls and road sides. A. April.—Aug.

Sheep and Horses eat it.

It feeds the Brown Moth *Phalæna granella* — and the Barley Fly, *Musca frit.*

meadow HOR'DEUM *praten'se.* Huds.*—Lateral florets abortive, awned. Fences bristle-shaped, rough. St.

Vaill. 17. 6.—*H. ox.* viii. 2, *row.* 1. 6.—*Fl. dan.* 630, *with florets magnified.—Park.* 1144. 7. (3)—*Mont.* 96, *a single floret. (Barr.* 111. 2, *spike* 3, *instead of* 1½ *or* 2 *inches long;—H. ox.* viii. 6. 5, *Gr. fecalin.—and Mont.* 93, *not the plant.)*

As narrow again as the *H. murin.* taller, more upright, and browner. Linn.—*Middle floret* sitting. *Lateral florets* on short fruit-stalks, ending in an awn 1½ or 2 lines long. Scheuch. St.—*Fences* no where fringed. *Florets*, in some specimens, hairy. Schreb.—*Middle floret* smooth; *awn* 1½ as long as the floret. *Lateral florets* with a pointal as well as chives, but very minute, and never coming to maturity; *blossom* outer valve rough towards the point; *awns* not quite half as long as the floret; not *awnless* as in Mr. Hudson's character. A stiff bristle-shaped *awn* at the base of each floret, nearly

* No such name in the Spec. Plant. which Mr. Hudson refers to.

nearly one third of the length of the floret, as if the rudiment of the fruit-ſtalk of the ſecond floret. ST.

Hordeum murinum. β. LINN.—*Hordeum ſecalinum.* SCHREB. *ſpicileg.* —*Hordeum maritimum.* OEDER.

Moiſt paſtures. P. June.

HOR'DEUM *marit'imum.* Lateral florets with only chives, awned. Inner fence of the lateral florets half-egg-ſhaped. HUDS. —— Rather half-ſpear-ſhaped; not fringed. ST. *ſea*

H. ox. viii. 6. 5, *with a floret.*

Lateral florets on fruit-ſtalks which are ½ a line long; *outer valve* awned. *Middle floret* ſitting. SCHEUCH. ST. — *Fences* roughiſh, not fringed, or ſcored, the reſt awl-briſtle-ſhaped. *Florets* ſmooth; awn-like *rudiment of a fruit-ſtalk* at the baſe of the inner valve; the *lateral ones* on very ſhort fruit-ſtalks at the baſe of their fence, and their awns ſomewhat longer than the floret.

Gram. ſpicat. ſecalin. maritimum minus. SCHEUCH. 18. ST.—*Hordeum marinum.* HUDS. who did not, perhaps, advert to the too great reſemblance between this name and *murinum* in ſound as well as ſpelling. ST.

Meadows and paſtures. A. June. July.

HOR'DEUM *ſylvat'icum.* HUDS.——All the florets with chives and pointals, awned. Fences growing together at the baſe, ſhorter than the awns. HUDS. ST. *wood*

Elymus europæus, which ſee. *Hordeum cylindricum.* MURR. prod. 43.

In this and all the preceding ſpecies is concealed in the longitudinal furrow of the flowers, a *pedicle*, appearing like a 3d leaf of the fence. HUDS. ST.—But ſometimes ſupporting an abortive floret. HUDS.—I have never yet met with a 2d floret in any of them but this. ST.

105. TRIT'I-

105. TRIT'ICUM. Wheat.

Pl. II. fig. 24.

Common *Receptacle* lengthened into a ſpike.

EMPAL. *Huſk* 2 valves, containing about 3 florets. *Valves* egg-ſhaped, bluntiſh, concave.

BLOSS. 2 valves, nearly equal, the ſize of the empal. *Outer valve* diſtended, blunt, but tapering. *Inner valve* flat.

CHIVES. *Threads* 3; hair-like. *Tips* oblong, forked at each end.

POINT. *Seed-bud* turban-ſhaped. *Shafts* 2; hair-like, reflected. *Summits* downy.

S. VESS. None. The bloſſom contains the ſeed until it is ripe.

SEED. Single; oblong egg-ſhaped; blunt at each end, convex on one ſide, furrowed on the other.

ESS. CHAR. *Empal.* 2 *valves, ſolitary; containing about* 3 *florets. Florets blunt, but tapering.*

OBS. The *outer valve* of the bloſſom in ſome ſpecies is furniſhed with an awn; in others not. The *middle* floret is frequently without pointals. LINN. — In ſtructure, *Triticum* and *Bromus* are one genus. See obſ. on *Feſtuca*. ST. — The diſpoſition of the little ſpikes conſtitutes the only difference between this genus and Bromus. SCOP. ST.

ruſh TRIT'ICUM *jun'ceum*. Empalements lopped; 5 florets in each. Leaves rolled inwards.—

C. B. th. 132.—*H. ox.* viii. 1. 5. *(Fluk.* 33. 4. *a. not examined, but referred to by Hudſon, &c.)*

Extremely ſmooth. *Sheaths* downy. *Leaves* ſharp-pointed; very narrow; ſea-green on the upper ſurface. *Little ſpikes* preſſed to the ſtraw. *Empal. and Bloſs.* with or without awns. LINN.

VAR. β. HUDS. — Leaves not ſo ſharp and not ſo much rolled in. Spikes ſomewhat thicker. RAY.

VAR. γ. HUDS.—With a leafy ſpike. RAY.

Ger. 23. 2, *cop. in C. B.* 15, *Park.* 1277. 3, *and H. ox.* viii. 2. 12, *ſeems only a diſeaſed plant, poſſibly from the puncture of inſects.*

Sea Wheat-graſs.

Sea ſhore, common. [Beach at Yarmouth. Mr. WOODWARD.]

P. June. July.

couch TRIT'ICUM *re'pens*. Empalements awl-ſhaped, containing ſeveral ſharp-pointed florets. HUDS. — Huſks ſharp

ſharp-pointed, or awned. Awns ſhorter than the little ſpikes. SCHREB. ST.—Root creeping. ST.—Empalements awl-ſhaped, pointed; 4 florets in each. Leaves flat. LINN.

Schreb. 26.—*(Lob. obſ.* 11. 2, *cop. in Park.* 1173. 1.—*C. B.* 7. —*Blackw.* 537, *ill done, if the plant.)*

α. HUDS. Florets 2 to 5, awnleſs. SCHREB. ST. awnleſs

Schreb. 26. III. *ſpike, and* 1 *little ſpike.* —— *Leers* 12. 3, *ſpikes, &c.*—*H. ox.* viii. *row.* 3. 8.—*Mont.* 25, *little ſpike.*

β. HUDS. Florets 5 to 8. Awns not a line long. SCHREB. ST. ſhort-awned

Schreb. 26. II. *and* 2 *and* 3, *ſpike, &c.*—*Mont.* 26, *little ſpike.*—*Park.* 1173. 2.—*Barr.* 906. 2.—*C. B. pr.* 17. 1, *repr. in th. and cop. in Park.* 131.—*Gmel.* 1. 24.—*Scheuch.* 1. 1. *A. C.* 1. 5 and 6. SCHREB. Florets 4 to 6. Awns 2 to 4 lines long. ST. long-awned

Fl. dan. 748.—*Schreb.* 26. 5 *and* 7.—*Vaill.* 17. 2.?—*Leers* 12. 4. I.?—*Scheuch.* 1. 1. *C.* 2. *(Vaill.* 17. 3, *has* 12 *to* 14 *florets.)*

Triticum caninum. MŒNCH.—*Triticum dumetorum.* Germ. ſynon.

Gram. ſpica, &c. dictum cum ſpica ariſtata. R. ſyn. 390.

VAR. *γ.* Leaves ſea-green, ſtiff, ſharp. HUDS.

Empalements containing from 3 to 8 pointed florets. HUDS.

Dogs-graſs, Squitch-graſs, Couch-graſs, Quitch-graſs.

Very common. P. June.—Aug.

It is a moſt troubleſome weed in arable lands, and can only be deſtroyed by fallowing in a dry ſummer.

At Naples the roots are collected in large quantities, and ſold in the market to feed horſes; they have a ſweet taſte, ſomething approaching to that of liquorice; when dried, and ground to meal, they have been made into bread in years of ſcarcity. The juice of them drank liberally is recommended by Boerhaave in obſtructions of the viſcera; particularly in caſes of ſchirrhous liver and jaundice. Cattle are frequently found to have ſchirrhous livers in the winter, and they ſoon get cured when turned out to graſs in the ſpring. Dogs eat the leaves to excite vomiting.—Horſes eat them when young, but leave them when fully grown. Mr. SOUTHWELL.

Cows, Sheep, and Goats eat them.

TRIT'ICUM *cani'num*. Empalement pointed. Awns longer than the bloſſom. Root fibrous. ST.—Empalements awl-ſhaped, with moſtly 4 florets. Florets awned. HUDS.—Root perennial. Spike ſomewhat nodding. Little ſpikes upright. Awns very long. SCHREB. *dogs*

Leers 12. 4. II. *ſpike, &c.*—*H. ox.* viii. 1. *row.* 3. 2.—*Buxb.* iv. 50. *(Gmel.* 1. 27, *reſembles it, but, from the deſcription, ſeems to be a different plant.)*

Leaves bare of hairs underneath. *Sheaths* ſmooth. *Little ſpikes* 5 or 6 lines long. *Empal.* 3 lines long. Lowermoſt *bloſs.* 4 or 5 lines long; *outer valve* ſending out from a bluntiſh point, an awn, from 7 to 9 lines long. SCHEUCH. ST.——I never ſaw the *little ſpikes* in pairs. SCHREB.—*Root* not creeping. REICH.—*Bloſs. inner valve* ſpear-ſhaped juſt ſenſibly longer than the outer; *outer* bare of hairs, edges at the point membranaceous. The above circumſtances diſtinguiſh it from the *Feſtuca ſylvatica*, which it very much reſembles in its general appearance. ST.

Triticum caninum. LINN. ſp. pl. ed. 1. HUDS. SCHREB. ſpicileg. *Elymus caninus.* LINN.

Woods and hedges. [Ripton Wood, Huntingdonſhire, and in the North, frequent. Mr. WOODWARD.] P. June. July.

ſea TRIT'ICUM *maritimum.* Empalements containing ſeveral ſharp-pointed florets. Spike branched.—*Poa loliacea.* HUDS. which ſee.

Straw ſomewhat branched; about a ſpan high. *Leaves* as long as the ſtraw; the ſheathing part purple. *Spike* branched, almoſt reſembling a panicle; its branches angular. *Little ſpikes* of 8 or 10 florets, alternate, compreſſed; thickeſt at the baſe; ſitting; in the branches ſometimes ſolitary. LINN.

Sea ſhore, common. A. June. July.

GRASSES have a *boneycup* of 2 leaves, rather oblong; but, as it furniſhes no generic diſtinction, it was thought ſuperfluous to mention it every where. LINN.

Feſcue TRIT'ICUM *bromoïdes.* Little ſpikes cylindrical; remote, WIGGERS. *Feſtuca pinnata.* HUDS. which ſee. It is not a Triticum, but I have given Wigger's name and character for the ſake of the inveſtigating botaniſt. ST.

Order

Order III.

TRIGYNIA; III. POINTALS.

107. MON'TIA. Blinks. *(Ray.)*

EMPAL. *Cup* 2 leaves. *Little leaves* egg-ſhaped, concave, blunt; upright; permanent.

BLOSS. 1 petal, deeply divided into 5 parts. The 3 alternate ſegments ſmaller than the reſt, and ſupporting the chives.

CHIVES. *Threads* 3; hairlike; as long as the bloſſom, into which they are inſerted. *Tips* ſmall.

POINT, *Seed-bud* turban-ſhaped. *Shafts* 3; woolly; expanding. *Summits* ſimple.

S. VESS. *Capſule* turban-ſhaped, blunt; covered; of 1 cell and 3 valves.

SEEDS. 3; roundiſh.

ESS. CHAR. *Cup* 2 *leaves. Bloſs.* 1 *petal; irregular. Capſ.* 1 *cell;* 3 *valves.*

OBS. The cup has frequently 3 leaves, and then there are often 5 chives. LINN.

MON'TIA *fonta'na.* *water*

Mont. 13. 2.—*Curt.* iii. 32.—*Vaill.* 3. 4.—*Pluk.* 7. 5, *cap. by Pet.* 10. 12.—*Fl. dan.* 131.—*J. B.* iii. 786. 3?

Stems ſucculent, trailing, crooked; white or tinged with pink. *Leaves* rather fleſhy, egg-ſhaped, oppoſite; 2 at each joint of the ſtem. *Flowers* on long or ſhort crooked fruit-ſtalks riſing from the boſom of the leaves. *Bloſs.* white. *Seeds* black, ſhining; dotted when magnified. WITH.

Small Water Chickweed, or Purſlane.

Springs and watery lanes. Sometimes in wet ploughed lands. [Hockley Pool Grate, near Birmingham. WITH.—Wet heaths in Norfolk, frequent. Mr. WOODWARD.] A. May.

189. TILLÆ'A.

EMPAL. *Cup* with 3 diviſions, flat. *Segments* egg-ſhaped, large. *(Segments pointed, concave, approaching.* ROSE.)
BLOSS. *Petals* 3, egg-ſhaped, pointed, flat, moſtly ſmaller than the cup. *(Petals concave.* ROSE.)
CHIVES. *Threads* 3, ſimple, ſhorter than the bloſs. *Tips* ſmall, *(roundiſh.* ROSE.)
POINT. *Seed-buds* 3. *Shafts* ſimple. *Summits* blunt.
S. VESS. *Capſules* 3, oblong, tapering, reflected; as long as the bloſſom; opening lengthways upwards.
SEEDS. 2; egg-ſhaped.

ESS. CHAR. *Cup with* 3 *or* 4 *diviſions. Petals* 3 *or* 4; *equal. Capſules* 3 *or* 4, *with ſeveral ſeeds.*

OBS. In the *T. aquatica*, a native of Europe, though not yet found in Britain, 4 is the prevailing number in the parts of fructification.

moſſy TILLÆ'A *muſco'ſa.* Stems trailing. Bloſſoms with 3 clefts.—

Roſe 2. 2, *natural ſize A. magnified B.—Mich.* 20, *as growing wild H. H. cultivated I. magnified K. parts of fructif. A.—G.*—Mr. WOODWARD.

Stems at firſt nearly upright, generally red. ROSE.—*Parts of fructification* never more than 3. *Leaves* in pairs, fleſhy. *Floral leaves* ſhaped like the other leaves, but ſmaller. *Stalks* conſiderably longer after flowering. Mr. Roſe's deſcription very good. Mr. WOODWARD.—Of the ſame natural family with the *Sedum*, *Sempervivum*, &c. ST.

[Dry heaths, Norf. and Suffolk. Mr. WOODW.] P. May. June.

110. HOLOS'TEUM.

EMPAL. *Cup* 5 leaves. *Little leaves* egg-ſhaped, permanent.
BLOSS. *Petals* 5, deeply divided, blunt, equal.
CHIVES. *Threads* 3; hair-like; ſhorter than the bloſſom. *Tips* roundiſh.
POINT. *Seed-bud* roundiſh. *Shafts* 3; hair-like. *Summits* bluntiſh.
S. VESS. *Capſ.* 1 cell, rather cylindrical; opening at the top.
SEEDS. Several, roundiſh.

ESS. CHAR. *Cup* 5 *leaves. Petals* 5. *Capſule* 1 *cell, nearly cylindrical, opening at top.*

HOLOS'-

HOLOS'TEUM *umbella'tum*. Flowers in rundles.— *rundled*
Ceraſtium umbellatum. HUDS. which ſee.

112. POLYCAR'PON. Allſeed.

EMPAL. *Cup* 5 leaves. *Little leaves* egg-ſhaped, concave, keeled; ending in a ſharp point; permanent.
BLOSS. Petals 5, very ſhort, egg-ſhaped, notched at the end, alternate; permanent.
CHIVES. *Threads* 3, thread-ſhaped; half the length of the Cup. *Tips* roundiſh.
POINT; *Seed-bud* egg-ſhaped. *Shafts* 3, very ſhort. *Summits* blunt.
S. VESS. Capſule egg-ſhaped, of 1 cell and 3 valves.
SEEDS. Many; egg-ſhaped.
ESS. CHAR. *Cup* 5 *leaves*. *Petals* 5, *very ſmall, egg-ſhaped*. *Capſule* 1 *cell*; 3 *valves*.

POLYCAR'PON *tetraphyl'lum*. LINN.—Stem branching, trailing. Leaves in fours. LINN. THE SON. *four-leaved*
Matth. 734.—*Barr*. 534.—*J. B*. iii. 366. 2.—*Lob. adv*. 196. 1.
The flowers are ſometimes without petals. HUDS.—It alters its habit ſo much by cultivation as hardly to be known at firſt ſight. Mr. WOODW.—*Cup-leaves* keeled; edges membranaceous. *Leaves* oval, very entire, on leaf-ſtalks, growing moſtly in fours. Mr. NEWBERY.
Dry ſandy ground. [Lymſton, near Exeter. Mr. NEWBERY.]
A. May.—Aug.

Claſs IV.

TETRANDRIA.

IV. CHIVES.

THE Chives in this Claſs are 4, and all of the ſame length; whereas, in the fourteenth claſs, which is likewiſe compoſed of flowers with 4 chives, the chives are unequal in length, 2 of them being long, and 2 ſhort.

The fourth diviſion of the firſt ORDER includes the STELLATÆ or STARRY plants, which admit of the following NATURAL CHARACTER.

STELLA'TÆ. Starry Plants.

EMPAL. *Cup* ſmall; with 4 teeth; permanent; ſuperior,
BLOSS. 1 petal; tubular. *Border* expanding; with 4 diviſions.
CHIVES. *Threads* 4. *Tips* ſimple.
POINT. *Seed-bud* beneath; double. *Shaft* thread-ſhaped; cloven.
SEEDS. 2; ſomewhat globular.

OBS. Stem 4 cornered. Leaves ſurrounding the ſtem in form of a ſtar. MARTYN. *Cat. Cant.*

The plants correſponding with this natural character are aſtringent and diuretic.

Order

Order I.

MONOGYNIA; I. POINTAL.

* *Flowers of* 1 Petal, *and* 1 Seed—*superior.* INCORPORATED.

120. DIP'SACUS. - - Common *Empal.* leafy. *Receptacle* conical, chaffy. *Seeds* like little pillars.

121. SCABIO'SA. - - *Empal.* common to ſeveral florets. *Recept.* raiſed, a little chaffy. *Seeds* crowned; rolled in a cover.

** *Flowers of* 1 Petal—*beneath; and* 1 Seed-veſſel.

151. CENTUN'CULUS. *Bloſs.* wheel-ſhaped. *Empal.* deeply divided into 4 parts. *Capſule* 1 cell; cut round.

148. PLANTA'GO. - - *Bloſs.* bent back as if broken. *Empal.* divided into 4 parts. *Capſ.* 2 cells; cut round.

† Gentiana campeſtris. Gentiana filiformis.

*** *Flowers of* 1 Petal—*ſuperior; and* 1 Seed-veſſel.

152. SANGUISOR'BA. - *Bloſs.* flat. *Cup* 2 leaves. *Capſ.* 4 cornered; between the cup and the bloſſom.

**** *Flowers of* 1 Petal—*ſuperior; and* 2 Berries. STARRY.

134. RU'BIA. - - - *Bloſs.* bell-ſhaped. *Fruit* a berry.

132. GAL'IUM. - - *Bloſs.* flat. *Fruit* nearly globular.

† Valantia cruciata.

128. ASPER'ULA. - - *Bloſs.* tubular. *Fruit* nearly globular.

127. SHERAR'DIA. - - *Bloſs.* tubular. *Fruit* crowned. *Seeds* with 3 teeth.

***** *Flowers of* 4 Petals—*beneath.*

† Cardamine hirſuta. Evonymus europœus. Parietaria officinalis.

****** *Flowers of* 4 Petals—*ſuperior.*

155. COR'NUS. - - *Empal.* with 4 teeth; deciduous. *S. Veſſel* pulpy; including a ſtone with 2 cells.

******* *Flowers imperfect — beneath.*

177. ALCHEMIL'LA. - *Empal.* with 8 clefts. *Seed* 1, enclosed in the empalement.

Order II.

DIGYNIA; II. POINTALS.

180. BUFO'NIA. - - *Blofs.* 4 petals. *Empal.* 4 leaves. *Capf.* 1 cell, 2 valved, 2 feeded.

182. CUS'CUTA. - - *Blofs.* with 4 clefts, egg-fhaped. *Empal.* with 4 clefts. *Capf.* 2 cells, cut round.

178. APH'ANES. - - *Blofs.* 0. *Empal.* with 8 clefts. *Seeds* 2.

† Herniaria glabra. Gentiana campeftris. Gentiana filiformis. Galium Mollugo. Galium Aparine.

Order III.

TETRAGYNIA; IV. POINTALS.

184. I'LEX. - - - *Blofs.* 1 petal. *Empal.* 4. toothed. *Berry* 4 feeded.

188. SAGI'NA. - - - *Blofs.* 4 petals. *Empal.* 4 leaves. *Capf.* 4 cells. *Seeds* many.

189. TILLÆ'A. - - See page 132.

186. POTAMOGE'TON. *Blofs.* 0. Empal. 4 leaves. *Seeds* 4, fitting.

187. RUP'PIA. - - *Blofs.* 0. *Empal.* 0. *Seeds* 4, on footftalks.

† Holofteum umbellatum. Linum Radiola.

120. DIP'SACUS. Teasel.

EMPAL. *Common Cup* many leaves containing several florets. *Little leaves* which form the cup longer than the florets; flexible; permanent. *Proper Cup* superior; scarcely perceptible.

BLOSS. *General*, regular. *Individuals* of 1 petal, tubular. *Border* with 4 clefts; upright. The outer *Segment* larger and sharper.

CHIVES. *Threads* 4; hair-like; longer than the blossom. *Tips* fixed side-ways.

POINT. *Seed-bud* beneath. *Shaft* thread-shaped; as long as the blossom. *Summit* simple.

S. VESS. None.

SEED. Solitary; resembling square pillars; crowned with the entire margin of the proper cup. *Receptacle common* conical. *Florets* separated by long chaffy leaves.

ESS. CHAR. *Empal common, of many leaves. Proper cup superior. Receptacle chaffy.*

DIP'SACUS *fullo'num.* Leaves sitting; serrated. *manured*
LINN.—Chaff bowed back. MILL. JACQ.—Rather hooked. SAUV. ST.

Tourn. 265, *a single head.*—*Fuchs.* 224, *cop. in Trag.* 847, *and J. B.* iii. 73.—*Matthiol.* 661, *cop. in Dod.* 735. 1; *repr. in Lob. obs.* 487. 1.—*Ger. em.* 1167. 1, *which is cop. in Park.* 984. 1, *with a separate head.*—*H. ox.* vii. 36. 1.—*Zanon.* 68.

Scales much harder than those of the *D. sylvestris.* HALL. ST.

Dipsacus fullonum. β. LINN.

It is cultivated for the use of the clothiers, who employ the heads with crooked awns to raise the knap upon woollen cloths. For this purpose they are fixed round the circumference of a large broad wheel, which is made to turn round, and the cloth is held against them. The plant flowers in June and July, and the heads are collected in August.

DIP'SACUS *sylvestris.* Chaff straight. MILL. SAUV. *wild*
JACQ.—Leaves entire. JACQ.

Jacq. austr. 402.—*Curt.* iii. 34.—*Blackw.* 50.—*Fuchs.* 225, *cop. in J. B.* iii. 74.—*Matth.* 662, *cop. by Dod.* 735, *repr. by Lob. obs.* 487. 3, *Ger. em.* 1167. 2, *which cop. by Park.* 984. 2.—*Ger.*

Ger. 1005. 1, *heads ripe.*—*H. ox.* vii. 36. 3.—(*Ger.* 1005. 2, *is D. laciniatus.*)

Leaves ſerrated. MILL.—Growing together at the baſe. MURR. —*Common Empal. leaves* long, encircling the head. CURT. ST.—Longer than the head. Mr. WOODW.—*Chaff*, ſome of the lower ones gently bowed downwards, but not hooked at the point. ST.—*Empal. common* with leaves of different ſizes, long, ſlender, ſharp, edged with ſharp-pointed briſtles, or rather prickles. *Florets* collected into egg-ſhaped heads, and ſeparated by white, ſtrap-ſhaped, channelled leaves, terminating in awns, and hairy towards the end. *Proper cup* 4 cornered, greeniſh, downy at the rim. *Bloſs. tube* white, 4 cornered, woolly; *border* purple, cloven into 4 blunt, ſhallow, ſegments, one of which is longer than the reſt. *Chives* not longer than the bloſſom. *Leaves* ſpear-ſhaped, the mid-rib ſet with hooked prickles, as is alſo the ſtem. WITH.

Dipſacus fullonum, &c. LINN.

Uncultivated places, wet hedge banks.—I have not found it north of Derbyſh. and Nottinghamſh. Mr. WOOD. B. June.—Aug.

ſmall DIPSACUS *pilo'ſus*. Leaves on leaf-ſtalks, with little appendages. LINN.—(*The lower ones* have no appendages. JACQ.)

Curt. 1. 9.—*Jacq. auſtr.* 248.—*Blackw.* 124. 2.—*H. ox.* vii. 36. 5.—*Park.* 984. 4.—*Matth.* 663, *cop. in Dod.* 735. 3, *repr. in Lob. obſ.* 487. 2, *and Ger. em.* 1168. 3.—*Blackw.* 124. 1.—*J. B.* iii. 75. 2.

Fruit-ſtalks ſet with ſtrong briſtly hairs. *Empal. common*, ſpear-ſhaped leaves, covered on the outſide with briſtly hairs. *Florets* collected into globular heads, and ſeparated by leaves ſimilar to thoſe of the common empalement. *Outer cup* 4 cornered, ſkinny, lopped. *Inner cup* larger, 4 cornered, with 4 ſhallow ſegments, and fringed with ſoft hairs. *Bloſs.* ſegments nearly equal, greeniſh white. *Summit* ſlightly cloven into 2 or 3 parts. *Stems* angular; ſet with prickles pointing upwards. *Branches*, oppoſite, riſing from the boſom of the leaves. *Leaves* ſpear-ſhaped, ſerrated, prickly along the mid-rib. WITH.

Shepherds Rod. Shepherds Staff.

Hedges and damp places. [Lilleſhall Abbey, Shropſhire. WITH. —Abbey-lane, Eveſham. Worceſterſhire. Mr. BALLARD.]

B. LINN. JACQ. P. HUDS. Aug.

121. SCABI-

121. SCABIO'SA, Scabious.

EMPAL. *Common Cup* of many leaves, expanding; containing many florets. The *leaves* ſit upon and ſurround the receptacle in ſeveral rows, the inner ones of which become gradually ſmaller.

Proper Cup double; ſuperior.

Outer Cup ſhort; membranaceous; plaited; permanent.

Inner Cup with 5 diviſions; the ſegments between awl and hair-ſhaped.

BLOSS. *General* regular; but moſtly compoſed of irregular florets.

Individuals of 1 petal; tubular; with 4 or 5 clefts; equal, or unequal.

CHIVES. *Threads* 4; between awl and hair-ſhaped; limber. *Tips* oblong, fixed ſideways.

POINT. *Seed-bud* beneath; rolled in a proper ſheath, like a little cup. *Shaft* thread-ſhaped, as long as the bloſſom. *Summit* blunt; obliquely notched at the end.

S. VESS. None.

SEED. Solitary; oblong egg-ſhaped; rolled in a cover; variouſly crowned by the proper cups.

Receptacle common, convex, beſet with chaffy leaves.

ESS. CHAR. *Common empal. many-leafed. Proper cup double, ſuperior. Receptacle chaffy, or naked.*

OBS. Outer bloſſoms generally larger and more irregular. Seeds crowned differently in different ſpecies. Florets having 4 or 5 clefts afford a primary ſpecific diſtinction. LINN.

SCABIO'SA *ſucciſa*. Bloſſoms with 4 cleft, equal. Stem undivided. Branches near together. Leaves between egg and ſpear-ſhaped.— *Devils-bit*

Ludw. 193.—*Curt.* iii. 32. β.—*Fl. dan.* 279.—*Fuchs.* 715, *cop. in Trag.* 246, *J. B.* iii. 11, *and H. ox.* vi. 13. 7. β.—*Blackw.* 142.—*Matth.* 623, *leaves too large.*—*Dod.* 124. 1, *repr. in Lob. obſ.* 295. 2, *Ger. em.* 726, *and cop. in Park.* 492. 1.—*Ger.* 587, *root-leaves alſo ſerrated. Stem-leaves ſerrated in all the figures except Fl. dan. (Column phytob.* 10, *appears to me a different ſpecies.)*

Bloſs. ſometimes fleſh-coloured, or white. RAY. ST.—*Stem-leaves* toothed. *Flowers* nearly globular. CURT.—*Root-leaves* very entire. *Stem-leaves* ſometimes ſawed. *Stem* ſometimes ſimple, and not more

more than a hand's breadth high. *Leaves* entire. Specimen gathered by Mr. Watt, on Stavely Downs, Cornwall, near the ſea. St.—*Proper Cup (the outer cup of* Linn.) 4 cornered, hairy; with 4 ſhallow clefts, the ſegments fringed with white hairs. *Honeycup (the inner cup of* Linn.) encloſing the ſeed-bud, crowned with a concave, glandular receptacle, armed with 4 or 5 ſtrong reddiſh-black briſtles. Beſides the above apparatus, each floret is furniſhed with a green ſpear-ſhaped floral leaf, terminated by a white taper briſtle. *Stem* and *leaves* rough with hair. *Bloſs.* bluiſh purple; ſometimes double. With.

Fields and paſtures, frequent. P. June.—Aug.

The dried leaves are uſed to dye wool yellow or green. Linn.—A ſtrong decoction of it, continued a good while together, was an empirical ſecret for gonorhœas.

field SCABIO'SA *arvenſis*. Bloſſoms with 4 clefts, radiating. Leaves with winged clefts, and jagged. Stem rough with ſtrong hairs.—

Ludw. 21, *florets not expreſſed.*—*Sheldr.* 98, *leaf, head, &c.*—*Fl. dan.* 447.—*Fuchs.* 716, *cop. by Trag.* 242, *and J. B.* iii. 2. 1.—*Ger.* 583. 4.—*Blackw.* 185.—*H. ox.* vi. 13. 1.—*Ger. em.* 720. 4.—*Dod.* 122. 1, *repr. in Lob. obſ.* 291. 1, *Ger. em.* 719. 1, *and cop. in Park.* 485. 1, *habit too ſtiff.*

Sometimes ſmooth. *Flowers* ſometimes white, and all the leaves entire. Hall.—*Common empal.* fringed with long, white hairs. *Proper Cup* 4 cornered, hairy; with 4 ſmall teeth. *Honeycup (the inner cup of* Linn.) encloſing the ſeed-bud; crowned with a concave receptacle, ſet with ſhining glands on the inſide, and armed with 8 or 12 ſpear-ſhaped, ſerrated, greeniſh, briſtly ſubſtances, hairy at the baſe. *Florets in the circumference* larger, with 4 unequal clefts. *Florets in the center* regular. *Tips* fixed to the threads by the middle. *Summit* with 2 or 3 flat, broad clefts. *Seed-bud* encloſed by the lower part of the honeycup. *Leaves* rough with hairs and tubercles; ſpear-ſhaped, and more or leſs jagged; ſome of them cut into winged clefts. *Stem*, towards the bottom, ſpotted with dark purple. *Bloſs.* a little woolly; blue, purple, or white. With.

Paſtures and corn fields. P. July. Aug.

Sheep and Goats eat it. Horſes and Cows not fond of it.

Slightly aſtringent, bitter, and ſaponaceous.

ſmall SCABIO'SA *Columba'ria*. Bloſſoms with 5 clefts, radiating. Root-leaves egg-ſhaped, ſcolloped. Stem-leaves winged, briſtly.—

Walc.

Walc.—*Ger.* 582. 2.—*Column. phytob.* 22.—*Cluſ.* ii. 2. 2, *repr. in Dod.* 122. 3, *Lob. obſ.* 290. 2, *Ger. em.* 719. 2, *and cop. by Park.* 484. 1.—*J. B.* iii. 4.—*Matth.* 970.—*Fl. dan.* 314, *flowers half as large again as any I have ever ſeen.*—*H. ox.* vi. 14. 20.—*[Herm. par.* 221, *ſeems to me to be a different ſpecies.]*

Feather with briſtles 5 times as long as the bloſſom. LINN.

Dry hilly paſtures, frequent. P. June.—Aug.

Horſes, Sheep, and Goats eat it. The *Papilio Maturna* feeds upon all the ſpecies.

151. CENTUN'CULUS. Chaffweed.

EMPAL. *Cup* with 4 cleſts; expanding; permanent. *Segments* ſharp, ſpear-ſhaped; longer than the bloſſom.

BLOSS. 1 petal; wheel-ſhaped. *Tube* ſomewhat globular. *Border* flat, with 4 cleſts. *Segments* nearly egg-ſhaped.

CHIVES. *Threads* 4; nearly as long as the bloſſom. *Tips* ſimple.

POINT. *Seed-bud* roundiſh; within the tube of the bloſſom. *Shaft* thread-ſhaped; as long as the bloſſom; permanent. *Summit* ſimple.

S. VESS. *Capſule* globular; of 1 cell; cut round.

SEEDS. Several; roundiſh; very ſmall.

ESS. CHAR. *Empal.* 4 *cleſted. Bloſs.* 4 *cleſted, expanding. Chives ſhort. Capſule* 1 *cell; cut round.*

OBS. Allied to *Anagallis*, but differs in its empal. being longer than the bloſſom; its bloſſom crowning the ſeed-veſſel, and its threads being bare. ST.

CENTUN'CULUS *minimus.* *Pimpernel*

Curt. iii. 31.—*Fl. dan.* 177.—*Vail.* 4. 2.—*Mich.* 18. 2, *confirmed by Mr. Woodward.*

Bloſs. minute; white; in the boſom of the leaves. LINN.—*Leaves* alternate, and not oppoſite, as in Anagallis. MICH.—*Bloſs.* continuing and adhering like a calyptra to the point of the capſule, never expanding but when the ſun ſhines ſtrongly upon them. CURT. —*Plant* very ſmall, branched, forked. *Leaves* ſometimes oppoſite towards the bottom; egg-ſhaped, pointed, ſmooth, fleſhy, pellucid at their edges, and browniſh underneath. *Flowers* ſolitary. ROTH.

Baſtard Pimpernel.

Moiſt ſandy ground. A. June.

148. PLANTA'GO. Plantain.

EMPAL. *Cup* 4 cleft; very ſhort; upright; permanent.
BLOSS. 1 petal, permanent; ſhrivelling. *Tube* cylindrical, but ſomewhat globular. *Border* 4 cleft; reflected. *Segments* egg-ſhaped, ſharp.
CHIVES. *Threads* 4; hair-like; upright; exceedingly long. *Tips* rather long; compreſſed; fixed ſideways.
POINT. *Seed-bud* egg-ſhaped. *Shaft* thread-ſhaped; half as long as the chives. *Summits* ſimple.
S. VESS. *Capſule* egg-ſhaped; with 2 cells; cut round. *Partition* looſe.
SEEDS. Several; oblong.

Eſs. Char. *Cup* 4 *cleft. Bloſs.* 4 *cleft, its borders reflected. Chives extremely long. Capſ.* 2 *cells, cut round.*
OBS. Empal. in ſome ſpecies equal, in others unequal. LINN.

great — PLANTA'GO *major.* Leaves egg-ſhaped, ſmooth. Stalk cylindrical. Spike tiled with florets.—*Curt.* ii. 16.—*Fl. dan.* 461.—*Blackw.* 35.—*Matth.* 479, *cop. in Dod.* 107. 1, *which is repr. in Lob. obſ.* 162. 2, *and Ger. em. and re-cop. in Park.* 493. 2 *and* 1.—*H. ox.* viii. 15. 2, *and Pet.* ii. 4. 1, *in fruit.*—*Trag.* 225. 1, *in fruit.*—*Fuchs.* 38, *cop. in J. B.* iii. 502.—*Ger.* 338. (*Gmel.* iv. 35 *and* 36, *ſeem to have an angular ſtalk.*)

Stalk nearly 2 edged. Mr. HOLLEFEAR.—*Leaves* with 7 ribs. Mr. WOODWARD.

dwarf — β. *Ger.* 339. 1, *cop. in J. B.* iii. 505. 3.

dented — 3. PETIVER. Leaves with large teeth towards the baſe. ST. *Pet.* 4. 2.—*Park.* 494. 5. *d.*

pyramidal — γ. Spike leafy. Flower-leaves diſpoſed in a pyramidal form. ST. *Ger.* 340. 5.—*H. ox.* viii. 15. 3. *b. c.*—*Park.* 494. 5. *b.*—*J. B.* iii. 503. 1.—*Ger. em.* 420. 4, *upper branch.*—*Pet.* 4. 4, *upper branch.*

roſe — ε. Spike leafy. Flower-leaves diſpoſed in a roſe-like form. ST. *Park.* 494. 5. *c, cop. in H. ox.* viii. 15. 3. *a.*—*J. B.* iii. 503. 1.—*Pet.* 4. 4, *lower branch.*

This and the *pyramidal* often riſe from the ſame root.

beſom — ζ. Stalk branching into a panicle. ST.
Dod. 107. 2, *repr. in Lob. obſ.* 162. 4, *Ger. em.* 420. 6, *and cop. in J. B.* iii. 503. 2, *Park.* 494. 5. *a. and Pet.* 4. 5.—*H. ox.* viii. 15. 4.
[Bedingham, near Bungay, Suffolk. Mr. STONE.]

Seeds

Seeds black; 2 in each cell. SCOP.—*Capſule* 6 ſeeded. LEERS.—*Segments* of the cup concave, ſkinny at the edges. *Floral-leaf* boat-ſhaped, fleſhy, larger than the cup. *Bloſs.* ſkinny. *Tips* pointed. *Leaf-ſtalks* ſpout-ſhaped. *Leaves* with 7 or 9 ribs. *Stalk* rough with ſhort browniſh hair. WITH.

Way-bread.

Road ſides and foot paths, common.

A. Hudſ. P. Linn. June.—Aug.

Sheep, Goats, and Swine eat it. Cows and Horſes refuſe it.

The common people apply the green leaves to cuts.

PLANTA'GO *me'dia*. Leaves between ſpear and egg-ſhaped; downy. Spike and ſtalk cylindrical.— *hoary*

Curt. iv. 43.—*Fl. dan.* 581.—*Walc.*—*Fuchs.* 39; *cop. in J. B.* iii. 504. 1.—*Matth.* 480, *cop. in Cluſ.* ii. 109. 1; *repr. in Dod.* 107. 4, *Lob. obſ.* 162. 3, *Ger. em.* 419. 2, *and re-cop. in J. B.* iii. 504. 2; *H. ox.* viii. 15. 6, *and Pet.* 4. 3.—*Ger.* 338. 2.—*Trag.* 226. 1.—*Park.* 493. 3.—*Spike. (J. B.* iii. 505. 3, *is Pl. major. β.)*

Leaves not toothed. *Cups* ſmooth. *Threads* purpliſh. LINN.—*Capſule* with 2 ſeeds. *Leaves* generally roundiſh egg-ſhaped, but ſometimes as in the Linnæan character, and the figure of Fuchs; often toothed towards the baſe, generally imperfectly, but ſometimes deeply. ST.—Segments of the cup purpliſh and ſkinny, with a green rib along the middle. *Bloſs.* ſkinny, white. *Chives* white. *Leaves* toothed. WITH.—Ribs 5. Mr. WOODWARD.

2. Leaves with ſtraw-coloured ſtripes. variegated

Hawford Bridge, near Worceſter. ST.

Lambs-tongue.

Road ſides in marle or chalkey lands. P. June.—Aug.

Sheep, Goats, and Swine eat it. Cows and Horſes refuſe it.

PLANTA'GO *lanceola'ta*. Leaves ſpear-ſhaped. Spike nearly egg-ſhaped, naked. Stalk angular.— *Rib-wort*

Curt. ii. 15.—*Fl. dan.* 437.—*Blackw.* 14.—*Walc.*—*Dod.* 107. 3, *repr. in Lob. obſ.* 163. 1, *Ger. em.* 422. 1, *and cop. in Park.* 496. 1, *H. ox.* viii. 15. 9, *and Pet.* 4. 6.—*J. B.* iii. 505. 1.—*Trag.* 225. 2, *leaves too broad.*—*Ger.* 341. 1.—*Matth.* 481.—*Anderſ.*—*(Fuchs.* 39, *is P. media.)*

Leaves ſometimes toothed. *Seeds*, 2 in each capſule. CURT. LEERS.—*Stalk*, angles 7. SCOP. Mr. WOODW.—*Leaves*, ribs 5. Mr. WOODW. WITH.—*Root* as if bitten off. *Floral-leaves* green; woolly underneath. *Cup* unequal. *Tips* white; opening at the lateral edges. WITH.

Rib-wort.

Rib-wort. Rib-graſs.

Paſtures, very common. P. June.

ſmall β. Leaves narrower; ribs 3. St.

Ger. prov. 12.—*Ger.* 339. 4.—*J. B.* iii. 505. 2.—*Park.* 496. 3. —*Pet.* 4. 7.

Mountainous and barren places.

roſe δ. *folioſa.* St.—Summit of the ſtalk ſurrounded with leaves longer than the ſpike. Mr. Woodward.

Ger. 341. 2, *cop. in J. B.* iii. 506. 1, *and H. ox.* viii. 15. 10.

Near Leeds. St.—Ripton, Huntingdonſhire. Mr. Woodw.

proliferous 4. Spike with 2 or 3 heads. Leers.

Cluſ. ii. 110, *cop. in J. B.* iii. 506. 2, *and H. ox.* viii. 16. 10. —*Pet.* 4. 8.

Iſle of Thanet. Ray.

Linnæus ſays it is eaten by Horſes, Sheep, and Goats, and that Cows refuſe it; but Haller attributes the richneſs of the milk, in the famous alpine dairies, to this plant and to the Alchemilla vulgaris. With.—The total abſence of this plant in marſhy lands, is a certain criterion of the wretched quality thereof. In proportion as ſuch ſoils are meliorated by draining, this plant will flouriſh and abound. It is often ſown and cultivated for paſturage, but does not anſwer the purpoſe without a mixture of clover or other graſſes. Twelve acres of land being ſown with this plant; a plentiful crop was the conſequence, but no animal would eat it. Mr. Dickenson. —When it grows detached from other plants, as it frequently does by the ſides of foot-paths, I have never ſeen cattle touch it. With.

ſea PLANTA'GO *marit'ima.* Leaves ſemi-cylindrical, very entire; woolly at the baſe. Stalk cylindrical. Linn. —Leaves ſtrap-ſhaped, nearly entire. Spike cylindrical. Huds.——*(Including P. læſlingii and R. ſyn. p.* 315. *n.* 9, *as varieties.)*

Fl. dan. 243.—*Dod.* 108, *repr. in Lob. obſ.* 163. 2, *Ger. em.* 423. 3, *and cop. in Park.* 498. 1, *and H. ox.* viii. 17. 34.—*Ger.* 343. 3.—*J. B.* iii. 511. 3.—*Ger. em.* 425. 1, *ſeems to have been drawn from a withered ſpecimen.*

Leaves thick, ſtrap-ſhaped, frequently convex on the under ſide. Huds.—*Flowers* in a denſe ſpike. *Floral-leaves,* 1 to each floret, as long as the cup, concave, ſharpiſh, membranaceous at the edges. *Stalk* hairy, before flowering bent at the top. *Cup* crowned with long hairs riſing from its baſe. Roth.——*Spike* about 1 inch long; not upright 'till it flowers. *Empal.* ſet with very minute hairs. *Capſ.* 2 ſeeded. *Seeds* oblong; flat on one ſide, convex on the other; yellowiſh red. Scop.—*Leaves* ſometimes with 1 or 2 teeth; the

the woolliness at the base not very observable when cultivated. *Tips* yellow. WITH.

Sea coast. P. June. July.

Mr. Pennant, in the Brit. Zool. p. 13, says, it is cultivated and sown with clover in North Wales, and that it is greedily eaten by Horses and Cows; but Linnæus remarks, that though Sheep and Goats eat it, Cows are not fond of it.

β. *læflingii*. Leaves occasionally marked with a tooth. HUDS. narrowleaved
Ger. em. 423. 3. HUDS.

Plantago læflingii, which see.

γ. Leaves stiffish, pointed; in dry situations rolled in. Spike mountain oblong; in the smaller plants roundish. HUDS.

PLANTA'GO *Coro'nopus*.* Leaves strap-shaped, toothed. Stalk cylindrical. LINN. *fl. fuec. fp. pl.*—Leaves between winged and toothed. *hort. cliff.* HUDS. ST. *Buckshorn*

Fl. dan. 272, *and Pet.* 4. 10, *as growing in a poor soil.—Fuchs.* 449, *cop. by Trag.* 99, *and J. B.* iii. 509.—*Blackw.* 460, *as growing in a garden.—Matth.* 493, *cop. in Dod.* 109. 1, *repr. in Lob. obf.* 239. 2, *Ger.* 427. 1, *and cop. in Park.* 502. 1, *and H. ox.* viii. 17. 31.—*Tourn.* 49, *leaf.*

Spike truly nodding before it flowers. LINN. WITH.——*Leaves* with winged clefts, the segments very unequal; lying on the ground in form of a star. *Empal.* segments of the cup lapping over each other; fringed with fine hairs at the outer edge, and so deeply divided as almost to form a cup of 4 leaves. *Blofs.* thin and skinny; segments pale brown. *Chives, threads* doubled down before flowering. *Tips* terminated at one end by a small-pointed membrane. *Shaft* downy. WITH.

Coronopus hortenfis. Bauh. pin. 196, as evident from the figures referred to by Linnæus, (and not *Coronopus fylveftris hirfutior Bauh. ib.* though referred to by Linnæus, which is variety 4.) ST.

Star of the earth. Hartshorn.

Gravelly soil. A. June.—Aug.

This was formerly in repute as an antidote against the bite of a mad dog, but is now partly fallen into disuse.

Sheep and Goats eat it.

β. Leaves more deeply divided, and more hairy. Heads short, jagged and lax. BLACKST. p. 77.

Between Dartford and Greenhithe.

γ. Leaves strap-shaped, very entire, hairy. Spike roundish. HUDS. grass-leaved

* Erroneously changed in *Syft. Veget. and Syft. Plant.* to *coronopifolia*, as it is itself the Coronopus of Tournefort. ST.

Very much reſembles *Lob. ic.* 439. RAY; which is *P. ſubulata.* LINN. ST.

Dry meadows on the ſea coaſt. HUDS.—Banks of the river near Yarmouth, and near Sheerneſs, in Shippey. RAY.

broad-leaved 4. Leaves between ſerrated and toothed. ST.

Pluk. 103. 5.

Leaves more fleſhy than thoſe of (α); teeth reſembling thoſe of *(P. ſerraria.)* COLUMN. ST.—But no appearance of ribs; covered with ſhort whitiſh hairs; the *inner* inverſely egg-ſpear-ſhaped, tapering down into leaf-ſtalks, teeth expanding; the *outer* nearly ſtrap-ſhaped, toothed. Hair whitiſh ST.

Plantago Coronopus dicta maritima brevi latoque and dentato folio piloſa. Pluk. alm. 299.—*Coronopus Prochytæ inſulæ Column. ecph.*—*Plantaginellæ, &c. Ray. hiſt.* 879.—*Coronopus ſylveſtris hirſutior. Bauh. pin.* 190, as evident from the deſcr. of Column. referred to.—*(Plantago Coronopus.* GOUAN. *ill.* 6, refers to *Pluk.* 103. 5, but deſcribes the leaves as having only 1 or 2 teeth. ST.)—Found in Cornwall by Mr. WATT.

narrowleaved PLANTA'GO *læflin'gii.* Leaves ſtrap-ſhaped, ſomewhat toothed. Stalk cylindrical. Spike egg-ſhaped. Floral-leaves keeled, membranaceous.—

Jacq. hort. 126.—*Peliv.* 4. 9.

Differs from the *Pl. Coronopus* in being a ſmaller and earlier plant; in the *ſpike* being egg-ſhaped and not long. The *flowers* are more thinly ſet, the *floral-leaves* ſmooth and keeled; but, in the *Coronopus*, they are pubeſcent, and extremely narrow. The *chives* too are ſhorter, the *leaves of the cup* ſharper, the *bloſſom* browner. The *leaves* ſtrap, not ſpear-ſhaped; ſparingly toothed; the *ſtalk* hairy. LŒFL.—*Root* annual. *Leaves* ſometimes entire, downy, or ſmooth. *Stalks* downy, or ſmooth, about the length of the leaves. *Spike* always upright; when in bloſſom ſomewhat egg-ſhaped, when in fruit oblong. *Floral-leaves* ſmooth, blunt, edges membranaceous. *Seed*, 1 in each cell. JACQ. *hort.*—Linnæus refers alſo, but, I ſuſpect, erroneouſly, to *P. marina*, *R. ſyn. p.* 315, as the figures of *Park.* referred to by Ray is a copy of *Lob. obſ.* 163, which Linnæus gives as a ſynonym of *P. maritima.* I am doubtful whether *P. læſt.* be a native of Great Britain. ST. Mr. WOODW.—The ſpecimens I formerly took for that plant, from finding it with leaves ſlightly toothed, I am now convinced are *P. marina*, having more frequently found them with leaves quite entire, a circumſtance which is by no means conſtant in plants growing near the ſea. See Atriplex. Mr. WOODWARD.

Salt Marſhes. [Sea coaſt, Yarmouth. Mr. WOODW.] A. JACQ. P. July. Aug.

152. SANGUISOR'BA. Blood-wort.

EMPAL. *Cup* 2 leaves. *Little leaves* oppoſite, very ſhort; ſhedding.

BLOSS. 1 petal; wheel-ſhaped; with 4 (ſometimes 5. WITH.) diviſions. *Segments* egg-ſhaped; blunt; united by the claws.

CHIVES. *Threads* 4; broadeſt in the upper part; as long as the bloſſom. *Tips* ſmall; roundiſh.

POINT. *Seed-bud* 4 cornered; ſituated between the cup and the bloſſom. *Shaft* thread-ſhaped; very ſhort. *Summit* blunt.

S. VESS. *Capſule* ſmall; with 2 cells.

SEEDS. Small.

ESS. CHAR. *Empal.* 2 *leaves. Seed-bud between the cup and the bloſſom.*

SANGUISOR'BA *officina'lis.* Spikes egg-ſhaped. *Burnet*
LINN.—Between cylindrical and oval. ST.

Ludw. 94.—*Fl. dan.* 97.—*Fuchs.* 788, *cop. in J. B.* iii. 120.—*Ger.* 889. 2.—*Pet.* 4. 11.—*Cluſ.* ii. 197. 3, *repr. in Dod.* 105. 2, *Lob. obſ.* 412. 4, *Ger. em.* 1045. 2, *and cop. by Park.* 582. 3.—*Matth.* 1033, *the foliage better done than in any of the other figures.*—*H. ox.* viii. 18. 7.—*Muſ. ruſt.* v. 1. 6, *leaf.*

Little leaves, ſerratures ſharp; *thoſe of the lower leaves* heart-egg-ſhaped, on long leaf-ſtalks, which have frequently appendages at their baſe ſimilar to the little leaves; *thoſe of the upper leaves* ſpear-ſhaped, on very ſhort fruit-ſtalks. Mr. WOODWARD. ST.—*Empal.* leaves unequal, ſkinny, and woolly; of a yellowiſh brown. *Bloſs.* beneath; *ſegments* mulberry-coloured; *tube* 4 cornered, white, a little hairy, fleſhy, encloſing the ſeed-bud; its mouth filled with a thick, flattiſh, glandular ring, cloſely embracing, but not adhering to the ſhaft. Theſe are the appearances when a bloſs. is newly expanded; but, afterwards, the ſegments ſeparate ſo eaſily from the tube, that one ſhould be apt to call it a bloſſom of 4 petals, tho' ſometimes they may be obſerved to adhere ſlightly at the baſe. *Chives* thread-ſhaped, mulberry-coloured. *Tips* black. *Duſt* yellow. *Seed-bud* egg-ſhaped, ſmall. *Shaft* purpliſh red. *Summit* a fringed tuft, of a dark mulberry colour. *S. veſſel*, beſides the coat formed by the permanent tube of the bloſſom, there is another egg-ſhaped S. veſſel, including 1 ſeed. *Spike* mulberry-coloured. *Upper florets* either without chives, or with only an imperfect one. *Leaves* winged, ſmooth, alternate; *little leaves* ſerrated. WITH.

Wild Burnet. Great Burnet.

Moiſt paſtures, frequent. P. June.—Aug.

The whole plant is aſtringent. The green leaves are ſometimes put into wine to give it a grateful flavour, and the very young ſhoots are agreeable in ſallads. Cows, Horſes, Sheep, and Goats eat it. LINN.—But Horſes do not ſeem fond of it. Mr. WOODWARD.

134. RU'BIA. Madder.

EMPAL. *Cup* with 4 teeth; very ſmall; ſuperior.

BLOSS. 1 petal; bell-ſhaped; with 4 diviſions; without a tube.

CHIVES. *Threads* 4; awl-ſhaped; ſhorter than the bloſs. *Tips* ſimple.

POINT. *Seed-bud* beneath; double. *Shaft* thread-ſhaped; cloven at the top. *Summits* nearly globular.

S. VESS. 2 ſmooth *Berries*; united.

SEED. Solitary; roundiſh; with a hollow dot.

ESS. CHAR. *Bloſs. 1 petal; bell-ſhaped. Berries 2, 1 ſeed in each.*

OBS. The bloſſom has ſometimes 5 diviſions.

wild RU'BIA *peregri'na*. Leaves perennial, ſtrap-ſhaped; ſmooth above. LINN. *(according to* HUDS. *but to me it appears to be the following.* ST.)—*R. ſylveſtris*. MILL.—Lower leaves in ſixes; upper ones in fours and twos; rough on both ſides. MILL.

H. ox. ix. 21. 2.—*Pet.* 30. 3.—*Pomet.* 22. 30.—*Zanon.* 145.

Leaves from 4 to 8. HUDS.—Spear-ſhaped. *Bloſs.* of 5 leaves, (an error probably for—*divided into* 5.) *Chives* 5. Very nearly allied to the *R. tinctorum*.* Is it really a diſtinct ſpecies? HUDS. ST.—*Leaves*, and eſpecially thoſe of the branches, ſometimes between ſpear-ſhaped and elliptical; uppermoſt in twos; never ſtrap-ſhaped, as in the *R. peregrina* of Linn. and Mill. Often rough on both ſides, as in the *R. ſylveſtris* of Mill. the middle rib of the upper ſurface being occaſionally beſet with very minute prickles, whereas, thoſe of the *peregrina* are deſcribed as ſmooth above. ST.

Rubia fol. ellipt. aſperis, &c. HALL. 708. (HUDS. ST.)

St. Vincent's Rock, Briſtol. Hedges in Devonſhire. [In the Iſle of Wight. ST.] P. June. July.

132. GAL'IUM. Gooſegraſs.

EMPAL. *Cup* very ſmall; with 4 teeth; ſuperior.
BLOSS. 1 petal; wheel-ſhaped; with 4 diviſions, ſharp; without a tube.
CHIVES. *Threads* 4; awl-ſhaped; ſhorter than the bloſs. *Tips* ſimple.
POINT. *Seed-bud* double. *Shaft* thread-ſhaped; cloven half way down; as long as the chives. *Summits* globular.
S. VESS. 2 dry globular *Berries*; united.
SEED. Solitary; large; kidney-ſhaped.
ESS. CHAR. *Bloſs.* 1 *petal*; *flat*. *Seeds* 2, *roundiſh*.

* *Fruit ſmooth.*

GAL'IUM *Cruciata*. SCOP. and WIGG.—Leaves in fours; egg-ſpear-ſhaped; woolly. Stem undivided; woolly. Bunches lateral, with 2 leaves. ST. *Croſs-wort*

Blackw. 76.—*Dod.* 357. 1, *repr. in Lob. obſ.* 467. 2, *Ger. em.* 1123. 1, *and cop. in Ger.* 965, *Park.* 566, *and H. ox.* ix. 21. *row* 2. 1, *Cruciata.*—*J. B.* iii. 717. 2. *(a) a branch.*—*J. B.* iii. 717. 1.

I have a ſpecimen in which *all* the flowers have *chives* and *pointals*. WIGG.—*Flowers* ſometimes with 4 *chives* and a *ſhaft*, deeply divided; ſometimes with 4 *chives*, *and no pointal*, but a kind of *ring* in the center of the bloſſom; and ſometimes with 2 *or* 3 *chives*, and a tumid ring ſurrounding the baſe of the *ſhaft*. I have never met with any bloſſom with only 3 clefts. SCOP.—Add to this that in the *G. triſidum* the bloſſom is cloven into three. ST.—*Leaves* oval, marked with 3 veins; 4 at each joint of the ſtem, forming a croſs. *Stem* 4 cornered, with 4 fluted ſides; frequently tinged of a bright purple juſt above the middle joints. *Flowers* upon ſub-divided fruit-ſtalks riſing from the boſom of the leaves. *Floral-leaves* 2, ſmall, ſpear-ſhaped. WITH.

Galium fol. quat. &c. Hall. 709. (ST.)—*Valantia Cruciata*, which ſee.
Croſs-wort. Mugweed.
Roughs, and hedge banks. P. May. June.

GAL'IUM *paluſtre*. Leaves unequal, ſtrap-ſpear-ſhaped, blunt. Stems ſpreading.—* *white*

* Foliis inæqualibus, lineari-lanceolatis, obtuſis; caulibus diffuſis. ST.

four-leaved 1. *Quadrifolium*. St.

Galium paluſtre. Leaves growing by fours; inverſely egg-ſhaped, unequal. Stems ſpreading. Linn.—Leaves ſpear-ſhaped. St.

Fl. dan. 423, *(many of the leaves repreſented as pointed. Mr. Woodward. St.)—Pet.* 30. 5.—*Ger.* 967.—*(Ger. em.* 1126. 2, *disfigured by Park.* 565, *and J. B.* iii. 721. 1, *have leaves in ſixes.—Barr.* 82, *is G. uliginoſum.)*

Stem rough, branching, ſtriking root at the joints; brittle. Hall. —*Lower leaves* often in fives and ſixes. Leers.—Oblong egg-ſhaped. Mœnch.—*Stem* flaccid. Neck.—*Leaves* ſometimes in fives, and in one of the whorls 6; flexible, horizontal; or expanding; thoſe at the baſe of the branches largeſt; ſmooth, except at the keel and edges, which are beſet with very ſhort hooked hairs; the *upper* ſometimes egg-ſpear-ſhaped and inverſely egg-ſhaped, ſmooth on the keel. *Shafts* diſtinctly 2, as ſhort again as the chives. *Tips* purpliſh brown; yellowiſh within. St.—*Bloſs.* ſegments between egg and ſpear-ſhaped. *Tips* reddiſh brown. *Leaves*, thoſe in the ſame whorl of different ſizes; ſcarcely rough to the touch. *Stem* 4 cornered; the corners ſet with ſharp hooked prickles, pointing downwards. *Bloſſoms* numerous, white, on lateral and terminating fruit-ſtalks; forming a ſort of rundle, cloven into 3 parts, and again ſub-divided. With.—*White Ladies Bed Straw.*

Cows, Sheep, and Horſes eat it. Goats and Swine refuſe it.

Banks of rivulets, pools, and moiſt meadows. P. July.

dwarf 2. *nanum*. St.—Similar to variety 1, but ſcarcely a foot in length. Hall. St.—Reſembling the figure of *G. trifidum* in the Fl. dan. but readily diſtinguiſhable by the bloſſom with 4 *diviſions*, and the *divided* fruit-ſtalks. Found by Dr. Withering. St.

ſix-leaved 3. *hexaphyllum*. St.—Leaves in ſixes, narrower, but always blunt, and generally unequal. As large as variety 1. Hall. St. —It ſhould ſeem that Mr. Hudſon's new character of "Lower "leaves in fours, inverſely egg-ſhaped; upper ones in ſixes, ſtrap-"ſhaped; ſtem ſpreading," had been taken from a view of this variety only. *Branches* next in roughneſs to thoſe of the *G. Aparine ſpurium*, and *Valantia Aparine*. This plant I have been accuſtomed with Dr. Withering to refer to the *uliginoſum*, and I have received it from the ſon of Prof. Jacquin with the ſame title. But the inequality and bluntneſs of the leaves, and the want of the thornlike point of the *uliginoſum* as deſcribed by Linnæus, Haller, and Pollich, induce me to believe it with Haller, and, I may add, Ray (hiſt.) to be a variety of the *paluſtre*, though, being found in the ſame ſituations, it is not unlikely but it may turn out to be a diſtinct ſpecies. St.—In all reſpects reſembling the *paluſtre* except that the leaves grow in ſixes. With.—In the ſame ſituations as variety 1.

GALI-

GAL'IUM *procum'bens*. St. — Leaves in fixes, inverſely egg-ſhaped, ſharp-pointed, ſmooth. Stem proſtrate. Fruit-ſtalks 3-forked. Huds.——Leaves of the flowering ſtems ſpear-ſhaped, ſlightly hairy; the reſt generally inverſely egg-ſhaped, in fours. Stem ſmooth.— *trailing*

(Foliis caulium florigerum ſenis, lanceolatis, hirſutulis; ramorum ſubquaternis obovatis; caule proſtrato glabro.) St.

Pet. 30. 6.—*(J. B.* iii. 716. 2, *ſeems a different plant, and is referred by Linnæus to G. uliginoſum.)*

Diſtinguiſhable from *G. paluſtre* by its being much leſs, by the ſmoothneſs of its *ſtems and leaves*, and by its place of growth. Ray. *hiſt.*— Seems to be a variety of *G. uliginoſum* growing in dry and mountainous paſtures. Lightf.—But I have found it to be the ſame in marſhes as on hills. St.—*Stems* and *branches* matted together and ſpreading upon the ground. *Fruit* ſmooth. With. St.—*Flowering ſtem* from 2 to 6 inches high. *Leaves* of the ſtem ſometimes inverſely egg-ſpear-ſhaped; edges beſet with minute prickly hairs pointing towards the end; keel ſmooth; thoſe of the branches ſometimes in fives. St. With.—*Leaves*, often 4 in a whorl at the bottom of the ſtem, 5 about the middle, and 6 at the top, unequal in ſize though in the ſame whorl. *Stems* twiſted; cylindrical to the naked eye, but when conſiderably magnified they appear to have 4 rounded corners. *Rundles* of flowers, lateral and terminating, 1, 2, or 3 rundles ſpringing from the whorls at the joints of the ſtem. *Cup* none. *Shaft* cloven more than half way down. With.

Galium montanum. Huds. who ſhould ſeem not to have obſerved that Linnæus had given the ſame trivial name to a different plant in his *ſp. pl.* publiſhed in the ſame year with the 1ſt edit. of the *Fl. ang.* St.—*(Not G. caule anguloſo, foliis ſenis, ſubaſperis, ariſtatis.* Hall. 715, which is *G. aſperum.* Schreb. *ſpicil. and G. ſylveſtre.* Pollich. as is evident from a compariſon of Haller's deſcription with ſpecimens of both plants. St.)

Heaths and mountains. Huds.—Alſo in marſhy places. Ray. St.—I ſuſpect, however, that Ray's ſpecies comprehends alſo the *G. Mollugo in its dwarfy ſtate*, which ſee *variety* 2. St.

[Dudley Wood. With.] P. June.—Aug.

GAL'IUM *uligino'ſum*. Leaves in fixes, ſpear-ſhaped, ſharp-pointed, ſtiff, with prickly ſerratures bowed backwards. Bloſſoms larger than the fruit.— *marſh*

Barr. 82.—*J. B.* iii. 216. 2.

Leaves free from hairs, ending in a thornlike point. *S. veſſel* ſmooth. Linn. St.—*Leaves* ſometimes 7 or 8 in a whorl. Huds.— *Bloſs.* white, with a tinge of roſe-colour. Hall. St.——*Stem*,

angles rough with minute prickles. *Leaves* 5 lines long, (nearly) 1 broad, often bent downwards. POLLICH. ST.

(*Aparine Fl. lapp.* 58, muſt be a wrong reference, as is evident from the ſeeds being deſcribed with hooked hairs. ST.)

Meadows, paſtures, and wet heaths. On the lower bog Chiſſelhurſt. RAY. P. July.

Horſes, Cows, Sheep, Goats, and Swine eat it.

upright GAL'IUM *erec'tum*. Leaves moſtly 8 in a whorl; ſpear-ſhaped, with fine prickly ſerratures. Panicles with 3 diviſions. Stem rough, flaccid. HUDS.

(*Jac. auſtr.* 80, *according to* HUDS. *but the ſpecimens of the G. auſtriac.* JACQ. *from the profeſſor's ſon have a ſmooth ſtem, and are a quite different plant.* ST.—*Jacquin too deſcribes both the leaves and ſtem as ſleek and ſhining.* WITH.)

Root branched. *Stems* numerous, jointed, rather upright; ſwelled at the joints; 4 cornered, the edges roughiſh; ſomewhat hairy, branched: flowering branches oppoſite. *Leaves* 8, ſometimes 6 in a whorl; ſitting, ſpear-ſhaped, and between ſtrap and ſpear-ſhaped; bare. The terminating *panicle* divided into 3. *Flowers* white, 4 cleſted. *Seeds* ſmall, ſmooth. HUDS.—*Leaves* in whorls, from 4 to 5 inches diſtant from each other; bent back; ſerratures directed towards the point of the leaf, and not bowed back as in the reſt of the rough-leaved ſpecies. My ſpecimen agrees in every reſpect except the ſtem which is ſmooth. ST.

Meadows and wet paſtures. [Heydon Common, Norfolk. Mr. BRYANT.] P. June. July.

corn GAL'IUM *ſpu'rium*. Leaves growing by ſixes; ſpear-ſhaped, keeled, rough with prickles pointing backwards. Joints of the ſtem ſimple. Fruit ſmooth.—

Vaill. 4. 4.—(*a*) *the ſeed-veſſel, is referred to by Haller, though the fruit has a few ſhort hairs upon it. Mr. Hudſon does not refer to any figure.*—(*b. is a ſeed-veſſel of the G. Aparine.*)

Has a near affinity to *G. Aparine*, but ſmaller. *Stems* ſpreading. *Leaves* 6, not 8 as in *G. Aparine*; ſurface alſo beſet with prickles pointing backwards. *Seeds*, when ripe, juſt ſenſibly wrinkled. LINN.

Aparine ſemine lævore. R. hiſt. 484. *ſyn.* 225, from Ray's deſcription of "ſeeds not entirely ſmooth, but much leſs hairy than thoſe of "the *G. Aparine*," appears at leaſt to be the plant of Vaill. above referred to, which, whether the *G. ſpurium* or not, is readily diſtinguiſhable from the *V. Aparine* by the firſt diviſion of the fruit-ſtalks being ſurrounded with a whorl of leaves. Haller, however, aſſures

us,

us, that the ſpecimen ſent him by Mr. Hudſ. was the *Valantia Aparine*. It is pity that this remark of his learned correſpondent ſhould have eſcaped Mr. Hudſon's notice. My ſpecimens were cultivated under the name of *G. ſpurium* in the botanic garden of Mr. Sole, of Bath, but are undoubtedly *V. Aparine*. On theſe accounts I am induced to inſert it, believing that, and not the *G. ſpurium*, to be the plant deſcribed in the Fl. ang. St.

Corn fields. Iſle of Wight, and in Surrey. A. June. July.

GAL'IUM *tricor'ne*. Fruit-ſtalks from the ſides of the ſtem almoſt bare of leaves, dividing into 3; pedicles bowed back.* — *Valantia Aparine*. The flowers that have only chives cloven into 3; on pedicles which grow on the fruit-ſtalk of the flower producing chives and pointals. Linn. *three-horned*

Vaill. 4. 3. *a.*—*(b. is Aparine ſemine coriandri ſaccharati of Park. given as a ſynonym in the hort. upſ. but which, I think, is very properly regarded by Vaill. as a diſtinct ſpecies.)*

Fruit-ſtalks bearing 3 flowers curved downwards. Hall. St.—*Leaves* from 6 to 8; upper ſurface ſmooth, rib underneath rough. *Fruit* roughiſh, beſet with a number of minute tubercles, but which do not end in hairs. Pollich. St.—*Rundles* on fruit-ſtalks, generally 2 to a whorl, oppoſite, dividing into 3 branches; not leafy at the baſe, each bearing one fruit. The above as cultivated. In Vaill. fig. each rundle ſeldom produces more than one perfect fruit. St.

Place of growth, &c. ſee *G. ſpurium*.

GAL'IUM *ang'licum*. Leaves about 6 in a whorl, ſpear-ſhaped, taper-pointed, bent back, fringed with prickly hairs. Stem ſpreading, rough with prickles pointing backwards. Fruit ſmooth. Huds. St.——Bloſſoms ſmaller than the fruit. St. *ſmall*

Ray 9. 1, *at p.* 128.—*(Barr.* 58, *reſembles it, but the bloſſoms white, fruit hairy, and the branches with whorls of ſeveral leaves.)*

Stems from 1 to 1½ foot high, ſpreading, 4 cornered, knotted, branched; *flowering branches* oppoſite. *Leaves* bare, (except at the edge) ſometimes 7 in a whorl, and ſometimes ſtrap-ſpear-ſhaped. *Fruit-ſtalks* 3 forked. *Flowers* greeniſh yellow. *Seeds* larger than the bloſſom, ſmooth. Huds. St.—*Root* branching. *Stem, branches* alternate. *Panicle* terminating, (not ſo in Ray's figure.) *Bloſs.* of 4 petals, (an error for 4 diviſions?) Huds.—*Leaves*, the prickly hairs at the edge pointing forwards, ſometimes a few ſcattered on the

* (Pedunculis lateralibus, ſubnudis, 3-fidis; pedicellis recurvis.) St.

the ſurface; thoſe *of the branches* generally in twos as in Ray's figure. *Branches* rough. *Fruit-ſtalks* ſmooth, generally dividing into 3, one of them ſupporting 2 flowers; ſometimes dividing ſimply into 3 or 2. ST.

Aparine minima. R. ſyn. 225, is referred to by Hudſon, but Ray ſays, "ſeeds not ſo rough as in the other Aparines." Linnæus accordingly has referred it to his *G. pariſienſe.*——*Aparine minima.* VAILL. *par.* 14. Here, on the contrary, the deſcr. correſponds; but the *Gallium Tourn. inſt.* 664, which is given as a ſynonym, is alſo referred by Linnæus to his *G. pariſienſe.* I have ſpecimens of the plant of Vaill. collected in the King's garden, at Paris, correſponding exactly with the deſcriptions given above, and others of the *G. pariſienſe.* LINN.—I cannot diſcover any difference between them, except in the roughneſs and ſmoothneſs of the fruit, which induces me to believe the *G. anglicum* of *Hudſon*, and the *pariſienſe* of *Linn.* to be mere varieties of one and the ſame plant. ST.

Leaſt Gooſe-graſs.

At Hackney, on a wall. *H. ox.* III. *p.* 333. RAY.—Sandy ground between Dartford and Northfleet. On a wall at Farmingham, Kent. HUDS.—[On the walls of Binham church, Norf. Mr. CROWE.]

A. June. July.

leaſt GAL'IUM *puſil'lum.* Leaves growing by eights, rough with hairs, ſtrap-ſhaped, taper-pointed, ſomewhat tiled. Fruit-ſtalks forked.—

(J. B. iii. 716. 1, *is G. Mollugo;—Barr.* 58, *G. pariſienſe;—and H. ox.* ix. 22. 8, *not the plant.)*

Stems numerous, angular, a finger's length. *Leaves* 6 or 8 in a whorl, ſtrap-ſhaped, or between ſpear and ſtrap-ſhaped, ſharp, rough, as are alſo the ſtems, with expanding hairs. *Branches* few, alternate. *Whorls* of leaves often ſo thickly ſet as partly to tile the ſtems. *Panicle* thin ſet, moſtly terminating, upon twice forked fruit-ſtalks. LINN.—*Root* branched. *Stems* 4 cornered, the angles rough with prickles. *Leaves* 7 or 8 in a whorl; tiling the lower part of the ſtem. *Panicle* uſually forked. *Flowers* white. *Seeds* ſmall, ſmooth. Nearly allied to the *G. uliginoſum.* HUDS.—Angles of the *ſtem*, and edges and mid-ribs of the *leaves* rough with expanding hairs. *Leaves* rarely up to 8. Mr. WOODWARD.

Limeſtone Hills, near Kendall, Weſtmoreland. P. Aug.

downy-ſtalked GAL'IUM *ſca'brum.** Leaves moſtly in eights, ſharp-pointed. Flowering branches generally 3-forked. JACQ.

m

* Foliis octonis, linearibus mucronatis, ſulcatis; caulesque pubeſcentibus. ST.

in ſyſt. veg. ed. xiv. ST.—Leaves ſtrap-ſhaped, furrowed, beſet with ſhort hairs. Stem pubeſcent.—

Jacq. auſtr. v. 422.

Stems upright, cloſely beſet with very ſhort ſoft hairs. *Leaves* ſometimes 7, thoſe of the branches fewer, beſet with ſoft hairs. *Fruit* ſmooth. JACQ. ST.—*Stems* above, ſmooth and ſhining. JACQ. —But in his figure it is repreſented as beſet with hairs, as are my ſpecimens, even to the laſt ſub-diviſions. No appearance of prickles on the ſtem or leaves. *Leaves*, edges turned in; *lower ones* bent down. *Flowering branches* oppoſite, one always ſhorter than the other. *Fruit-ſtalks* ſmooth. ST.

[Hedgerow in a marly ſoil on the ſide of Red Houſe Lane, near Worceſter. ST.] P. Aug.

GAL'IUM *ve'rum*. Leaves 8 in a whorl; furrowed. *yellow* Flowering branches ſhort.—

Ludw. 39, *but ſpecimen unnaturally bowed down.—Mill.* 139. 1.—*Scheldr.* 61.—*Fuchs.* 196, *cop. in J. B.* iii. 720. 1, *Trag.* 492, *Dod.* 355. 1, *which repr. in Lob. obſ.* 467. 3, *Ger. em.* 1126. 1, *and cop. in Park.* 564. 1, *and in H. ox.* ix. 21. *row* 2. 1, *Gallium.—Matth.* 1131.—*Ger.* 967. 1.—*Blackw.* 435.—*Pet.* 30. 8.

Tips, after ſhedding their duſt, become brown. LINN.—This happens alſo in other ſpecies. WITH.—*Leaves* brittle, bent backwards when the flowers expand. SCOP.—*Stem* with large joints; cylindrical, ſcored, a little woolly. *Leaves* ſmooth, rolled back at the edges; from 5 to 9 in a whorl, but generally 8 upon the principal ſtem. *Bloſs.* ſegments greatly expanded. *Shafts* cloven more than half way down. *Bloſs. chives and pointal* yellow. WITH.

Yellow Ladies Bed Straw. Cheeſe Rening. Petty Muguet.

Sides of fields and roads, frequent. P. July. Aug.

The flowers will coagulate boiling milk; and the beſt Cheſhire cheeſe is ſaid to be prepared with them. The French preſcribe them in Hyſteric and Epileptic caſes. Boiled in alum-water they tinge wool yellow. The roots dye a very fine red, not inferior to madder, and are uſed for this purpoſe in the iſland of Jura. *Pennant* 1772. *p.* 214.

Sheep and Goats eat it. Horſes and Swine refuſe it. Cows are not fond of it.—This plant is ſubject to a diſeaſe, in which the ſtem and branches are ſet with fleſhy balls, about the ſize of a pea; hollow within, and covered with a purpliſh ſkin. WITH.

GAL'IUM *Mollu'go*. Leaves 8 in a whorl, between *Madder* egg and ſtrap-ſhaped, ſharp-pointed; ſomewhat ſerrated, greatly

greatly expanded. Stem limber. Branches expanding. LINN.—Stem 4 ſquare. ST.

Fl. dan. 455.—*Ger.* 967. 4.—*Fuchs.* 281, *cop. in J. B.* iii. 716. 1.—*Lob. obſ.* 468. 1, *repr. in Ger. em.* 1118. 2.—*Pet.* 30. 4. *Matth.* 921, *not in flower or fruit.*—*(Blackw.* 168, *ſeems rather the ſylvaticum, as is H. ox.* ix. 22. *row* 1. 1.—*In J. B.* iii. 721. 1, *the leaves are upright.)*

Stem generally weighed down by the weight of the branches. The old ſtems ſend forth buds. *Leaves* never more than 1 inch long. SCOP.—*Stem* quadrangular, diſtinguiſhes it from the *G. ſylvaticum.* ST.—*Leaves* ſuddenly tapering to a ſharp point. *Flowering branches* very much branched. HALL. ST.—*Stem* about 4 feet long; 4 edged, branched; thickeſt juſt above the joints, nearly ſmooth. *Leaves* from 6 to 8 in a whorl; unequal in ſize, oblong-egg-ſhaped, a little hairy on the back and at the edges, but not rough to the touch. *Flowers* very numerous, on fruit-ſtalks riſing from the whorls of leaves; generally 2 long and 2 ſhort flowering branches from each whorl. *Bloſs.* with 4 ſpear-ſhaped, pointed ſegments; white. *Tips* yellow. *Shaft* cloven down to the ſeed-bud, or more properly *ſhafts* 2. *Seeds* 2, ſmooth; 1 generally much larger than the other. The whole plant ſmooth to the touch. WITH.

White Ladies Bed Straw. Wild Madder. Great Baſtard Madder.

Hedges, roughs, and heaths, frequent. P. June.—Aug.

mountain 2. Leaves very entire, bent back; ſeldom exceeding 3 or 4 inches in height. SCOP.

Mollugo montana minor. Gallio albo ſimilis. R. ſyn. 224. WITH.—It ſeems at leaſt to comprehend this variety as well as the *G. procumbens.* ST.

Mountains. SCOP.—Malvern Hills. ST.

** *Fruit rough.*

croſs-leaved GAL'IUM *boreale.* Leaves 4 in a whorl, ſpear-ſhaped, ſmooth, 3-fibred. Stem upright. Seeds rough with ſtrong hairs.—

Pet. 30. 7.—*J. B.* iii. 716. 3.

Leaves blunt, reflected at the edges; 2 leaves riſing at each branch of the panicle. SCOP. ST.—*Leaves* ſometimes oval-ſpear-ſhaped. *Flower leaves* oval. Mr. WOODW. ST.—Or egg-ſhaped. *Stem* and *leaves* often beſet with with very ſhort hairs, ſometimes almoſt quite ſmooth. ST.—*Bloſs.* white. WITH.

Croſs-wort Madder.

Mountains in Weſtmoreland and Wales. [Near Pooley Bridge, by Ulſwater, Cumberland. Near the ferry at Winander Meer. Mr. WOODWARD.] P. July. Aug.

The

The roots afford a red dye for woollens.

Horſes, Sheep, and Goats eat it. Cows not fond of it. Swine refuſe it. LINN.

GAL'IUM *Apari'ne*. Leaves 8 in a whorl, ſpear-ſhaped; keel rough with prickles pointing backwards. Joints woolly. Fruit rough with ſtrong hairs.— *Cleavers*

Curt. ii. 17.—*Fl. dan.* 495.—*Sheldr.* 13.—*Vaill.* 4. 4. *(b) fruit.* —*Dod.* 353, *repr. in Lob. obſ.* 464. 3, *Aparine, Ger.* 963. 1, *Ger. em.* 1122, *and cop. by Park.* 567, *and H. ox.* ix. 22. *row* 2. 1, *Aparine.*—*Pet.* 30. 11.—*Blackw.* 39.—*Matth.* 807.—*Fuchs.* 50, *cop. in J. B.* iii. 713, *and Trag.* 494.—*Tourn.* 39. 1, *parts of fructification.*—*(Barr.* 81, *ſeems rather G. maritimum.)*

Stem 4 cornered, the angles ſet with prickles pointing backwards. *Joints* woolly at the baſe. *Leaves* 8 or 10 in a whorl, between ſtrap and ſpear-ſhaped, rough above, ſmooth underneath; the edges and the keel ſet with prickles pointing backwards. *Branches* oppoſite. LINN.—*Bloſs.* divided down to the baſe. *Shafts* 2, ſtanding wide aſunder. SCOP. ST. —— *Bloſs.* ſcarcely longer than the ſeed-bud. *Tips* yellow. ST.—*Empal.* wanting. CURT. WITH.—*Leaves* ending in a purpliſh awn-like point. Mr. HOLLEFEAR. —— *Fruit* ſet with hooked briſtles. Prickles on the *ſtem* pellucid, pointing downwards. *Joints* with a few white, woolly hairs. *Leaves* from 4 to 7, or more, in a whorl. *Bloſs.* white. WITH.

Catchweed. Gooſegraſs. Cleavers. Clivers.

Hedges, frequent. A. May. June.

The branches are uſed by the Swedes inſtead of a ſoi to ſtrain milk. Young geeſe are very fond of them. The ſeeds may be uſed inſtead of coffee. The plant is eaten by Horſes, Cows, Sheep, and Goats. Swine refuſe it. LINN.—The expreſſed juice of the ſtem and leaves, taken to the amount of 4 ounces, night and morning, is very efficacious in removing many of thoſe cutaneous eruptions, which are called, although improperly, Scorbutic. It muſt be continued for ſeveral weeks.

The *Sphinx ſtellatarum*, and the *Sphinx Euphorbiæ*, feed upon the different ſpecies of Galium.

128. ASPER'ULA. Woodroof.

EMPAL. *Cup* ſmall; 4 toothed; ſuperior.
BLOSS. 1 petal, funnel-ſhaped. *Tube* long; cylindrical. *Border* with 4 diviſions; ſegments oblong, blunt, reflected.
CHIVES. *Threads* 4; ſituated at the top of the tube. *Tips* ſimple.
POINT. *Seed-bud* beneath; double; roundiſh. *Shaft* thread-ſhaped; cloven at the top. *Summits* knobbed.
S. VESS. 2 dry globular *Berries* adhering together.
SEEDS. Solitary; roundiſh; large.
ESS. CHAR. *Bloſs.* 1 *petal, funnel-ſhaped. Seeds* 2, *globular.*

OBS. The diſtinction between *Aſperula* and *Galium*, taken from the length of the tube of the bloſſom, is ſufficiently obvious in their reſpective extremes, but, in ſome of the former, it becomes ſo ſhort, that the 2 genera ſeem to run into one. WIGG.

ſweet ASPER'ULA *odora'ta*. Leaves 8 in a whorl, ſpear-ſhaped. Flowers in bundles, on fruit-ſtalks.—

Curt. iv. 43.—*Sheldr.* 29, *beſt engraved.*—*Cluſ.* ii. 175. 2, *repr. in Dod.* 355. 2, *Lob. obſ.* 464. 2, *Ger. em.* 1124. 1, *and cop. in Park.* 563. 1, *and improved in H. ox.* ix. 22. *row* 1, *fig. the* 4*th.*—*Fl. dan.* 562, *leaves too rough, and longer than uſual.*—*Ger.* 966.—*Trag.* 496.—*Pet.* 30. 9.—*Blackw.* 60.—*J. B.* iii. 718. 3.—*Mill.* 55. 2.

Fruit covered with ſtiff hooked hairs. Mr. WOODWARD. ST.—*Panicle* with 3 diviſions. *Seed-buds* rough with hair. *Flowers* of a beautiful ſnowy white, and, when a little magnified, appear ſprinkled with ſhining, froſted particles. *Leaves* a little rolled back at the edges, and ſet with ſoft minute thorns. *Cup* not very evidently toothed. WITH.

Woodroof. Woodrow. Woodrowell. Woodruff.

Woodderowffe, as ſpelt in ſome old authors. The repetition of the double letters affords great amuſement to children learning to ſpell.

Woods and ſhady places. [At the Leaſowes, near Haleſowen. W.] P. May.

The ſcent of it is ſaid to drive away Ticks and other inſects. LINN.—It gives a grateful flavour to wine.

Cows, Horſes, Sheep, and Goats eat it.

ASPER'-

ASPER'ULA *cynan'chica*. Leaves 4 in a whorl, ſtrap-ſhaped. Upper leaves oppoſite. Stem upright. Flowers 4 clefted.— *Squinancy*

J. B. iii. 723. 2.—*Pet.* 30. 12.—*H. ox.* ix. 22. 9.

Stem rough, about 4 inches high. *Seed-buds* red. *Flowers* rough and wrinkled on the outſide. LINN.—*Stem* from a hand's breath to 1½ feet high, reclining, rigid. *Leaves*, 2 of them larger than the other 2; thoſe *of the upper part of the ſtem*, and *of the branches*, oppoſite, the place of the 2 which ſeem wanting ſupplied by 2 very ſmall leaves. *Bloſs.* whitiſh, with a tinge of purple. POLLICH. ST.—*Leaves* frequently pointing 1 way, ſometimes 5. Mr. WOODW. ST.—The *ſupplementary leaves* awl-ſhaped, not above a line long, reſembling leaf-ſcales. *Bloſs.* with a ſlight roughneſs on the outſide. *Seed-bud* the ſame in a leſs degree. ST.

Squinancy-wort.

Limeſtone hills, and high chalkey ſoils. [Woods in Herts. Swaffham, Norfolk. Newmarket Heath. Dunſtable Hills. Mr. WOODWARD.—Armingale Wood, by Norwich. Mr. CROWE.—Near Epſom, Surrey, in chalk. ST.] P. June. July.

127. SHERAR'DIA. Spurwort. *(Park.)*

EMPAL. *Cup* ſmall; with 4 (ſometimes 5 and 6. WITH.) teeth; ſuperior; permanent.

BLOSS. 1 petal; funnel-ſhaped. *Tube* cylindrical, long. *Border* with 4 diviſions. *Segments* flat and ſharp.

CHIVES. *Threads* 4; ſituated at the top of the tube. *Tips* ſimple.

POINT. *Seed-bud* beneath; double; oblong. *Shaft* thread-ſhaped; cloven at the top. *Summits* nearly globular.

S. VESS. None. *Fruit* oblong; crowned; ſeparable lengthways into 2 ſeeds.

SEEDS. 2; oblong; convex on one ſide; flat on the other; with 3 ſharp points at one end.

ESS. CHAR. *Bloſs.* 1 *petal, funnel-ſhaped. Seeds* 2, *with* 3 *teeth.*

SHERAR'DIA *arven'ſis*. All the leaves in whorls. Flowers terminating.— *little*

Fl. dan. 439.—*Blair* 4. 6, *flower-head.*—*Pet.* 30. 10.—*J. B.* iii. 719. 3.—*Barr.* 766, *and* 541. 1.—*(Lob. obſ.* 464. 1, *cop. in H. ox.* ix. 22. *row* 2. 1, *Rubeola; J. B.* iii. 719. 2, *and Park.* 276. 5, *quite other plants.)*

Cup

Cup with ſeveral teeth, from 1 to 6; crowning the ſeed-veſſel, which conſiſts of 2 cells; 1 ſeed in each. Scop.—*Bloſs.* blue, or purple; tube very long; ſegments egg-ſhaped. *Chives, duſt* white. *Floral-leaves* terminating, compreſſed, deeply divided into 8 parts, and encloſing 3 or 4 florets. *Leaves* on the ſtem, 6 in a whorl, ſometimes only 5. All the leaves ſet with fine briſtles along the edges and the back. *Stem* 4 cornered, ſet with ſtrong hairs. The whole plant is harſh and rough. With.

Little Field Madder.

Corn and fallow fields, common. A. May.—Sept.

Goats are very fond of it. Horſes eat it. Sheep are indifferent to it.

155. COR'NUS. Cornel.

Empal. *Fence* generally 4 leaves; including ſeveral florets. *Leaves* egg-ſhaped; coloured; deciduous; 2, oppoſite, ſmaller. *Cup* very ſmall, 4 toothed; ſuperior; deciduous.

Bloss. *Petals* 4; oblong; ſharp; flat; ſmaller than the fence.

Chives. *Threads* 4: awl-ſhaped; upright; longer than the bloſſom. *Tips* roundiſh; fixed ſideways.

Point. *Seed-bud* beneath; roundiſh. *Shaft* thread-ſhaped; as long as the bloſſom. *Summit* blunt.

S. Vess. Pulpy; including a nut or ſtone; nearly globular, and dimpled.

Seed. A heart-ſhaped, or oblong nut; with 2 cells.

Ess. Char. *Fence generally 4 leaved. Petals 3, ſuperior. Nut of 2 cells, covered with pulp.*

female COR'NUS *ſanguin'ea.* A tree. Tufts of flowers naked. Branches ſtraight.—

Fl. dan. 481, *in flower.*—*Matth.* 260, *in fruit.*—*Lob. obſ.* 592. 1, *cop. in Park.* 1521. 3.—*Ger.* 1283.—*Dod.* 782. 2, *repr. in Ger. em.* 1467.—*Trag.* 1004.

Tuft of flowers divided into 5 parts, and theſe again ſub-divided. *Flowers* ſometimes without chives. *Shaft* ſurrounded at the baſe by a circle, compoſed of 4 ſegments. *Berry* black; crowned with the ſhaft and the cup, the teeth of which bend inwards. Scop.

Dogberry tree. Hounds tree. Hounds berry. Prick wood. Prick timber. Gatten tree. Gatter tree.

Woods and hedges. S. June.

The

The wood is very hard and ſmooth, fit for the purpoſes of the turner. The berries are bitter and ſtyptic: they dye purple.

Horſes, Sheep, and Goats eat it. Swine and Cows refuſe it.

COR'NUS *ſue'cica*. Herbaceous. Branches in pairs, *dwarf*
(or rather with 2 branches, as they proceed from the baſe of 2 oppoſite leaves. ST.)

Fl. dan. 5.—*Penn. Tour Scotl. 1ſt ed. p.* 314.—*Dill. elth.* 91.—*Fl. lapp.* 5. 3. *(a) in the firſt ſtage of its growth, but its bloſs. already expanded; (b) in fruit.*—*Cluſs.* 1. 60. 1; *repr. in Ger.em.* 1296. 5, *and cop. in Park.* 1461. 4, *and J. B.* ii. 109. 1.—*Ger.* 1113.

Stem 4 cornered, rarely branched; forked at top. *Leaves* oval, lower ones rounder; entire, oppoſite. *General fence* 4-leaved, encloſing many flowers; *little leaves* white, deciduous, egg-ſhaped. *Flowers* very ſmall, in an undivided rundle. *Fruit-ſtalk* ſolitary; terminating, riſing from the fork of the ſtem. The 4 leaves of the *fence* have ſuch a reſemblance to petals, that it is eaſy at firſt ſight to imagine it a compound flower. ROTH.

Cornus herbacea. HUDS. The old name of the *Fl. lapp.* which Linnæus changed to *ſuecica* on characteriſing the *canadenſis* which is alike *herbaceous*. ST.

Dwarf honeyſuckle.

Hills in the North. P. June. July.

The pulpy berries, which taſte inſipidly ſweet, are acceptable to children.

Horſes, Sheep, Goats, and Swine eat it. Cows refuſe it. LINN.

177. ALCHEMIL'LA. Ladies-mantle.

EMPAL. *Cup* 1 leaf; tubular; permanent. *Rim* flat, with 8 diviſions: every other *Segment* ſmaller.

BLOSS. None.

CHIVES. *Threads* 4; awl-ſhaped; upright; ſmall; ſtanding on the rim of the empalement. *Tips* roundiſh.

POINT. *Seed-bud* egg-ſhaped. *Shaft* thread-ſhaped; as long as the chives; ſtanding on the baſe of the ſeed-bud. *Summit* globular.

S. VESS. None. The neck of the empalement cloſes upon the ſeed, and does not open again.

SEED. Solitary; oval; compreſſed.

ESS. CHAR. *Cup with* 8 *clefts. Bloſs.* 0. *Seed* 1.

Obs. Belongs to the natural order of Senticosæ, or Tormentil tribe. St.

common ALCHEMIL'LA *vulga'ris.* Leaves gashed.—*Ludw.* 176.—*Fl. dan.* 693.—*Blackw.* 72.—*Matth.* 1177.—*Trag.* 512.—*Fuchs.* 612, *cop. in J. B.* ii. 398. *(i) Dod.* 140. 2, *Ger. em.* 949, *and Pet.* 9. 9.—*Cluſ.* ii. 208. 2, *repr. in Lob. obſ.* 378. 3; *and cop. in Park.* 538, *H. ox.* ii. 20. *row* 3. 1, *and Pet.* 9. 10.—*Ger.* 802.—*Mill.* 18. 2.

Flowers forming a kind of rundle, the *General fence* being a leaf which entirely ſurrounds the ſtalk, but the *Partial fence* goes only half way round.. *Cup*, the mouth of its tube cloſed by a yellow fleſhy ring, which, perhaps, anſwers the purpoſe of a honeycup. *Bloſs.* yellowiſh green. *Tips and ſummit* turning black after flowering. *Leaves* cloven generally into 7 lobes, the lobes ſerrated, each tooth ending in a yellowiſh white point. *Leaf-ſtalk* ſending a rib along the middle of each lobe of the leaf. *Seeds* generally only 1, but ſometimes 2 in each ſeed-veſſel. With.

ſmall β. *minor.* Linn. Hall.

downy γ. *pubeſcens.* Hall.—*minor.* Leaves pubeſcent. Huds. *Pluk.* 240. 2.—*Barr.* 728.—*Mill.* 18. 1

Alchemilla alpina hybrida, α. Linn. *ſp. pl.* who ſuppoſes it to be the product of the ſeed of the A. alpina, impregnated by the duſt of the A. vulgaris.*

On mountains. P. July.

white (*alba.*) Empalement white.

Bearsfoot, in the North.

Meadows and paſtures, frequent. P. June.—Sept.

The whole plant is aſtringent. In the province of Smolandia, in Gothland, they make a tincture of the leaves, and give it in ſpaſmodic or convulſive diſeaſes.

Horſes, Sheep, and Goats eat it. Swine refuſe it. Cows are not fond of it.

Cinquefoil ALCHEMIL'LA *alpi'na.* Leaves fingered, ſerrated.—*Fl. dan.* 49.—*Lob. adv.* 307. 1.—*Pet.* 9. 11.—*Barr.* 756.—*Park.* 394. 3.—*J. B.* ii. 398. *(f)* 1.—*Cluſ.* ii. 108. 1, *repr. in Ger. em.* 988. 5, *and cop. in Ger.* 837. 5, *and H. ox.* ii. 20. *row* 2. 8, *leaves not ſerrated as they ought to have been.*—[*Munting. phytogr.*

* The letter β. in *ſp. pl. and ſyſt. pl.* ſhould be placed even with *A. minor Tourn.* &c. St.

togr. curioſ. t. 90, *is a very good figure, but inferior to Fl. dan. Its ſynonyms refer to Potentilla argentea.* Mr. WOODWARD.]

Leaves of a ſhining white underneath; divided into 7 little leaves, and ſerrated only at the ends. LINN.—*Little leaves* ſometimes 5, *thoſe of the ſtem-leaves* 3. Mr. WOODWARD.—*Flowers* greeniſh.

Mountains in the North. Ulſwater, near Penrith. RAY. [Rocks in Burrowdale, near Keſwick, Cumberland. Mr. WOODWARD.]

P. July.

Goats and Cows eat it. Horſes, Sheep, and Swine refuſe it.

ALCHEMIL'LA *Aphanes.* HALL. LEERS.—— *Parſleypiert*
Flowers from the baſe of the leaves. WIGG. ST.

Pet. 9. 12.—*H. ox.* ii. 20. *row* 3. 4.—*Lob. adv.* 324, *repr. in Ger. em.* 1594.—*J. B.* iii. *p.* 2. 74. 3.—*Park.* 449, *a copy of Lob. but encreaſed in ſize beyond nature.*

Sometimes only 1 *pointal* and 1 *ſeed.* LINN. ST. *bot. arr. ed.* I. —and 1 *chive.* ST, *ib.*—The ſtructure of the *flower* in all reſpects the ſame with that of the *Alchemilla. Empal.* cloven into 8; the *alternate ſegments* exceedingly ſmall, but always preſent. *Seed* 1, never 2; at leaſt in all which I have examined. LEERS. ST. *May*, 1775.—*Chive* only 1 in all the flowers I have examined. *Tip* oblong. *Duſt* oblong. ST.—*Stems* trailing, leafy. Leaves divided into 3 lobes, jagged. *Flowers* ſmall, greeniſh white. WITH.

Aphanes arvenſis. LINN.—*Parſleypiert.*

Corn fields and dry gravelly lands. A. May.—Aug.

Order II.

DIGYNIA; II. POINTALS.

180. BUFO'NIA. Toadgrass.

EMPAL. *Cup* 4-leaved, upright, permanent. *Little leaves* awl-shaped, keeled, membranaceous at the edges.

BLOSS. Petals 4; oval; upright; equal; notched at the end; shorter than the empalement.

CHIVES. *Threads* 4; equal; as long as the seed-bud. *Tips* double.

POINT. *Seed-bud* egg-shaped; compressed. *Shafts* 2; as long as the chives. *Summits* simple.

S. VESS. *Capsule* oval; compressed; of 1 cell, and 2 valves.

SEEDS. 2; oval; compressed; but marked with a little protuberance. Convex on one side.

ESS. CHAR. *Cup 4-leaved. Blos. 4 petals. Caps. 1 cell, 2 seeds.*

OBS. Lœfling once found 4 chives, but afterwards altered his opinion. Alstrœmer often found 4. Gerard sometimes 4, sometimes 2, rarely 3. LINN.

Chickweed BUFO'NIA *tenuifo'lia.*

Fluk. 75. 3.

Stem cylindrical, upright, jointed. *Branches* alternate. *Leaves*, 2 at each joint of the stem. *Flowers* at the base of the leaves; white.

WITH.

Bastard Chickweed.

Hounslow Heath. Sea Coast, near Boston, Lincolnshire.

A. Huds. P. Linn. May. June.

182. CUS-

182. CUS'CUTA. Dodder.

EMPAL. *Cup* 1 leaf, glaſs-ſhaped, 4 clefted, blunt, fleſhy at the baſe, (5 cornered. POLLICH. ST.)

BLOSS. 1 petal, egg-ſhaped, (permanent. ST.) a little longer than the empalement: *Mouth* 4 clefted, blunt. *Honeycup* 4 ſcales, ſtrap-ſhaped, cloven at the end, ſharp, united to the bloſſom at the baſe of the chives.

CHIVES. *Threads* 4, awl-ſhaped, as long as the empalement. *Tips* roundiſh.

POINT. *Seed-bud* roundiſh. *Shafts* 2, upright, ſhort. *Summits* ſimple.

S. VESS. Fleſhy, (membranaceous. ST.) roundiſh, 2 celled, cut round.

SEEDS. 2 (in each cell. ST.)

ESS. CHAR. *Empal.* 4 *(or* 5. ST.) *clefted. Bloſs.* 1 *petal. Capſule* 2 *cells.*

OBS. Sometimes the prevailing number in the parts of fructification is *five*. LINN.—The above deſcription of Linnæus made from *C. europœa*. In its *empal.* it reſembles *Polygonum;* in its *bloſſom* and *capſule* cut round, *Plantago;* but in its *capſule with* 2 *bills (ſub-biroſtris)* it ſhews an affinity to *Saxifraga*, between which and *Chryſoplenium* I would propoſe to place it in the order *Succulentœ*. ST.

CUS'CUTA *europœ'a*. Flowers ſitting. LINN.— *greater*
Bloſſoms pitcher-ſhaped; ſegments bluntiſh.* *The number of parts generally* 4, *but ſometimes* 5. ST.

Blackw. 554, *with parts of fructification.—Fl. dan.* 199.—*Fuchs.* 348.—*Matth.* 1279.—*Trag.* 810.—*Dod.* 554, *repr. in Lob obſ.* 233. 1, *Ger. em.* 577, *and cop. in Park.* 10. 2, *and Ger.* 462. —*J. B.* iii. 266.

This *plant* is paraſitical, without ſeed-lobes. The *ſeed* itſelf opens and puts forth a little ſpiral body, which does not ſeek the earth to take root, but climbs in a ſpiral direction from right to left, up other plants, from which, by means of veſſels, it draws its nouriſhment. *Leaves* none, except here and there a very ſmall membranaceous ſcale lying cloſe under a branch. LINN. ST.—*Flowers* in globular heads not furrounding the ſtem but from the ſide where it divides into branches. J. BAUH. ST.—The *ſeeds* ſown in a pot produced plants, but which ſoon died, unleſs they could attach themſelves to ſome other plant. PARK. *and* RAY *hiſt.*

* Corollis urceolatis, laciniis obtuſiuſculis.

As ſoon as the ſhoots have twined about an adjoining plant, they ſend out from their inner ſurface a number of little veſicles or papillæ, which attach themſelves to the bark, or rind of the plant. By degrees, the longitudinal veſſels of the ſtalk, which appear to have accompanied the veſicles, ſhoot forth from their extremities, and make their way into the ſofter plant, by dividing the veſſels, and inſinuating themſelves into the tendereſt part of the ſtalk; and ſo intimately are they united with it, that it is eaſier to break than to diſengage them from it. *Guettard in Gent. Mag.*

Bloſs. white, ſometimes with a tinge of purple. VAILL. ST.—*Empal.* like a ſpice clove, running down, as it were, into a kind of fruit-ſtalk; *ſegments* egg-ſhaped, often rounded at the end. *Capſ.* cut round cloſe to the baſe. *Partition* riſing from the lower half of the capſule. ST.

On furze buſhes, near Mollance, in Galloway. LIGHTF. who refers to *Fl. dan.* 199, but he appears to have inſerted it as a Scotch plant on the authority of a correſpondent, not from his own examination. Mr. Hudſon alſo has given *C. europ.* but, from his account of it, his plant appears to have been *C. Epithymum.* I have never ſeen the true *europæa* of Britiſh growth. My ſpecimens gathered in Champagne France, and from Germany. ST.—The whole plant is bitter. It affords a pale reddiſh colour.

Cows, Sheep, and Swine eat it. Horſes refuſe it. Goats are not fond of it. LINN.—Hops, flax, heath, and nettles are its common ſupport.—It never fixes upon trees or ſhrubs. SCOP. but Pollich mentions having found it on ſome of the *Ericas.* ST.

leſſer CUS'CUTA *Epith'ymum.* Flowers ſitting, ſurrounded with floral-leaves. Bloſſoms 5-clefted. LINN.—Bell-ſhaped. deeply cloven; ſegments taper-pointed.* *The number of parts conſtantly* 5. ST.

Fl. dan. 427.—*Park.* 10. 1.—*Math.* 1277.—*Pomet.* 42. 9.

Bloſs. with 5 diviſions, none with leſs. Shape of *bloſs.* and *empal.* agrees with Fl. dan. 427, though in habit it reſembles t. 199. Mr. WOODWARD. ST.—*Empal.* between cloven and divided; *ſegments* egg-ſhaped, taper-pointed, unequal, not running down into a kind of fruit-ſtalk as in *C. europæa.* ST.

Corn fields and heaths, very common. HUDS.—My ſpecimens, dried from Mr. Woodward, gathered by Mr. Pitchford; from Dr. Broughton, gathered, I believe, in Scotland; and from the ſon of Prof. Jacquin. ST. A. June.—Aug.

* Corollis campanulatis partito-quinquefidis; laciniis acuminatis.

178. APH'ANES. Parſleypiert.

EMPAL. *Cup* 1 leaf, tubular, permanent: *Mouth* flat, 4-clefted; *ſegments* alternately very ſmall.
BLOSS. None.
CHIVES. *Threads* 4; upright; awl-ſhaped; very ſmall; ſtanding upon the rim of the empalement. *Tips* roundiſh.
POINT. *Seed-buds* 2; egg-ſhaped. *Shafts* thread-ſhaped; as long as the chives; growing from the baſe of the ſeed-bud. *Summits* ſomewhat globular.
S. VESS. None; the *Rim* of the empalement cloſing, confines the ſeeds.
SEEDS. 2; egg-ſhaped; tapering; compreſſed; as long as the ſhafts.

ESS. CHAR. *Empal.* 4-*clefted.* *Bloſs.* 0. *Seeds* 2, *naked.*

OBS. It very nearly reſembles the ALCHEMILLA. It has ſometimes only 1 pointal and 1 ſeed. LINN. —— Seed 1. POLLICH. RETZ. &c.

APH'ANES *arven'ſis*, ſee *Alchemilla Aphanes*. *common*

Order III.

TETRAGYNIA; IV. POINTALS.

184. I'LEX. Holly.

EMPAL. *Cup* 4-toothed, very ſmall, permanent.

BLOSS. 1 petal, with 4 diviſions, wheel-ſhaped; *ſegments* roundiſh, concave, expanding, rather large, adhering by the claws.

CHIVES. *Threads* 4; awl-ſhaped; ſhorter than the bloſs. *Tips* ſmall.

POINT. *Seed-bud* roundiſh. *Shafts* none. *Summits* 4, blunt.

S. VESS. *Berry* roundiſh, with 4 cells.

SEEDS. Solitary; hard as bone; oblong; blunt; bellying on one ſide, angular on the other.

ESS. CHAR. *Empal.* 4-*toothed.* *Bloſs.* *wheel-ſhaped.* *Shaft* 0. *Berry* 4-*ſeeded.* LINN.—Fertile flowers; *empal.* 5-*toothed.* *Bloſs.* *with* 5 *diviſions, wheel-ſhaped.* *Chives* 5, *wheel-ſhaped.* *Shaft* 0. *Summits* 4. *Berry* 4-*ſeeded.* Barren flowers; *empal.* 4-*toothed.* *Bloſs.* *with* 4 *diviſions.* *Chives* 4. HUDS. Polygamia Dioecia.

OBS. Great variations take place in the flowers of the Ilex Aquifolium; ſometimes the chives and pointals are found on diſtinct plants; ſometimes on the ſame plant, but in different flowers; ſometimes again the flowers have 5 chives; and frequently the diſpoſition of the chives and pointals is ſuch, that it claims a place in the ſecond Order of the twenty-third Claſs. WITH.——Much has been written about the proper place of this plant in the Linnæan ſyſtem, but before it be removed to another claſs, it is neceſſary to ſhew that the majority of the other 9 ſpecies are liable to ſimilar ſexual variations. ST.

common I'LEX *Aquifo'lium.* Leaves egg-ſhaped, ſharp, thorny.—*Fl. dan.* 508.—*Mill.* 46.—*Hunt. Evel.* 383.—*Blackw.* 205.—*Nat. diſpl.* ii. 9. *A. at p.* 71.—*Dod.* 658.—*Matth.* 161, *cop. in Jonſt.* 63. 6.—*Ger.* 1155.—*Lob. obſ.* 582. 1, *repr. in Ger. em.* 1338.—*Trag.* 1067.—*Park.* 1487. 1.

Leaves without prickles, Park. 1487. 2, *but not a diſtinct variety, as the leaves of the lower branches are prickly.*

Leaves

Leaves ſurrounded by a ſtrong woody border; tough, ſhining, evergreen; frequently indented, and each tooth ending in a ſtrong, ſharp, thorn. The leaves upon the ſame tree are ſome of them entire, and ſome of them thorny. *Flowers* ſmall, whitiſh, lateral, on ſhort fruit-ſtalks, generally 3 together, ſpringing from a ſort of ſcale upon the branch. *Berries* ſcarlet, crowned with the cup, which turns black. *Seeds* 3 or 4. I have found it in flower ſo late as the 2d week in June, and then *all the flowers* had 4 chives and 4 pointals. WITH.

2. Berries yellow. ST. yellow berried

Agrifol. baccis lut. &c. RAY. *ſyn.* 466.—Wiſton, Suffolk. RAY.

Woods, hedges, heaths. [On the north ſide of the Wrekin, in Shropſh. the trees grow to a large ſize. WITH.] T. April.—June.

All the varieties which gardeners reckon to the amount of 40 or 50, are derived from this one ſpecies, and depend upon the variegations of the leaves or thorns, and the colour of the berries.

Sheep are fed in the winter with the croppings. *Pennant's Tour.* 1772. p. 32. Birds eat the berries. The bark fermented and afterwards waſhed from the woody fibres makes the common Birdlime. It makes an impenetrable fence, and bears cropping; nor is its verdure, or the beauty of its ſcarlet berries, ever obſerved to ſuffer from the ſevereſt of our winters. The wood is uſed in fineering, and is ſometimes ſtained black to imitate Ebony. Handles for knives, and cogs for mill-wheels are made of it.

188. SAGI'NA. Pearlwort.

BLOSS. *Cup* 4-leaved. *Little leaves* egg-ſhaped; concave; greatly expanded; permanent.

BLOSS. *Petals* 4; egg-ſhaped; blunt; expanding; ſhorter than the empalement.

CHIVES. *Threads* 4; hair-like. *Tips* roundiſh.

POINT. *Seed-bud* ſomewhat globular. *Shafts* 4; awl-ſhaped; bent backward; downy. *Summits* ſimple.

S. VESS. *Capſule* egg-ſhaped; ſtraight; with 4 cells, and 4 valves.

SEEDS. Numerous; ſmall; fixed to the receptacle.

ESS. CHAR. *Empal.* 4-*leaved.* *Petals* 4. *Capſ.* 4-*celled,* 4-*valved.* *Seeds many.* [*Capſ.* 1 *cell.* *Cup-leaves ſometimes* 5. ST.]

SAGI'NA *procum'bens.* Stems trailing. LINN.— *trailing*
(In dry ſituations upright. ST.)

Curt.

Curt. iii. 27.—*Seguier.* i. 5. 3.—*Park.* 1340. 6.—*Pet.* 59. 10.—*(Ger. em.* 567. 5, *not the plant.)*

Flowers sometimes with petals, and sometimes without. LINN. JACQ. WITH. ST.——In all the specimens of it gathered in the fields, I could never find any *petals*, but the same plant being transplanted into the garden produced petals the 2d year. The *Root* when cultivated perennial. JACQ. *enum.*—*Stem* sometimes not above 2 lines high. *Leaves*, the edges skinny towards the base, and fringed. *Empal. leaves* upright until the S. vessel opens. *S. vess.* valves thin, transparent, and, from the minuteness of the petals, may be easily mistaken for them. ST.—*Blossoms* greenish white,. The 4 valves of the capsule, after it opens, have so much the appearance of petals, that I was once deceived by them. WITH.

Chickweed-Breakstone.

Walls, roofs, sandy, and also boggy places; garden walks, paved courts, common, A. June.

annual β. *apetala.* HUDS. *Sagina apetala*, which see.

succulent γ. Leaves shorter, thicker, and more succulent. RAY.

annual SAGI'NA *apet'ala.* Stem rather upright, downy. Flowers alternate; without petals. LINN.——Petals very minute. ST.

Curt. iv. 49.—*Fl. dan.* 845, *(see Sagina erecta.)*—*Plott. oxf.* 9. 7. *at p.* 146.—*Pet.* 59. 11.—*Pluk.* 74.

Differs from the *S. procumbens* in the *root* being annual; the stems not striking root from the joints, and being of a dirty browniſh green. PLOTT. RAY. ST.—*Fruit-stalks* smooth. *Empal.* smooth, its *leaves* blunt. *Petals* scarcely twice as large as the tips, whence possibly unobserved by Linnæus; inversely egg-shaped, and sometimes heart-shaped; greenish, resembling honeycups. *Summits* very short. *Capsule* of 1 cell; *valves* larger than the leaves of the empalement, permanent. ST.—*Leaves* hairy. *Hairs* not terminated by minute globules as in *Spergula laricina.* CURT. Mr. WOODW.

Sagina procumbens apetala. HUDS.

[On a wall belonging to the Alms-house near St. Oswald's, Worcester. ST.]

upright SAGI'NA *erec'ta.* Stem upright; generally with only 1 flower. LINN.—Leaves of the cup spear-shaped, tapering to a point. ST.—Stem sometimes ascending. Mr. WOODWARD.

Curt. ii. 23.—*Ray* 15. 4. *at p.* 348.—*Vaill.* 3. 2.—*Pet.* 59. 9.—*(Fl. dan.* 845, *referred to by Murr. is surely the procumbens apetala, for Mull. himself remarks that it has no petals, and that the leaves*

leaves of the empalement are egg-ſhaped and concave.—Barr. 1165, *cannot ſurely be the plant.)*

Stem bearing from 1 to 3 flowers. LINN.—*Leaves* between ſtrap and ſpear-ſhaped. GER. *prov.* —— *Flowers* cloſed. *Shafts* often 5. POLLICH.—*Stem* in dry ſeaſons generally ſimple; in moiſt grounds ſeveral, aſcending, each ſupporting from 1 to 3 flowers. *Shafts* very ſhort. *Capſule* opening generally with 10 teeth. Agrees with *Sagina* in the number of its parts; in its habit and glaucous appearance it approaches to the *Stellaria Holoſteum*, but in its ſeed-veſſels it agrees with *Ceraſtium*. CURT.—It is truly a *Ceraſtium*. The *Alſine media* and *Ceraſtium ſemidecandrum* are Ceraſtiums with half the uſual complement of chives. This is a *Ceraſtium* of the ſame kind, *with one-fifth of its uſual number of parts taken away;* a circumſtance which Linnæus notices in many genera. ST.—*Stems*, varieties of above-mentioned do not ſeem owing to a wet or dry ſeaſon, having, for ſome years paſt, found them with theſe different appearances in their reſpective places of growth. Mr. WOODWARD.—*Leaves* ſmooth. Bloſſoms white. WITH.

Leaſt ſtitchwort.

Gravelly ſoil. [Heaths in Norfolk, frequent. Mr. WOODWARD.]

A. April. May.

186. POTAMOGE'TON. Pondweed.

EMPAL. None.

BLOSS. *Petals* 4; nearly circular; blunt; concave; upright; furniſhed with a little claw; deciduous.

CHIVES. *Threads* 4; flat; blunt; very ſhort. *Tips* double; ſhort.

POINT. *Seed-buds* 4; egg-ſhaped; but taper-pointed. *Shaft* none. *Summits* blunt.

S. VESS. None.

SEEDS. 4; roundiſh, taper-pointed, bellying on one ſide, flatted on the other, and angular.

ESS. CHAR. *Empal.* 0. *Petals* 4. *Shaft* 0. *Seeds* 4.

OBS. The *leaves* of thoſe ſpecies which grow under water are pellucid; thoſe of the *natans* which float on the ſurface or vegetate in air opaque; thoſe of the *denſum*, *ferratum*, and *ſetaceum* oppoſite, of the reſt alternate, except thoſe at the baſe of the fruit-ſtalks, where, in all the ſpecies that I have examined, they are oppoſite. ST.

POTAMOGE'TON *na'tans*. Leaves oblong egg-ſhaped, on leaf-ſtalks; floating. LINN. *broad-leaved*

Variety

(*Variety* 2 *grows in air.* ST.)

floating 1. Sheaths of the fruit-ſtalks and leaf-ſtalks more than half the length of the reſpective ſtalks. WITH.—Upper-leaves floating on the ſurface of the water. ST.

Fuchs. 651, *cop. in Trag.* 688.—*Ger. em.* 821. 1, *cop. in Pet.* 5. 4, *and H. ox.* v. 29, *row* 1. 1. *at p.* 596.—*Ger. em.* 675. 1.—*Park.* 1254. 1. *b, a branch with only leaves.*—*Matth.* 1137.

Leaves very entire, ribbed. POLLICH. ST.—Opaque, thoſe of the other ſpecies are pellucid. ST.—*Spikes* from the baſe of the leaves, on fruit-ſtalks as large as the ſtem. *Flowers* ſitting, numerous. Mr. WOODW. —yelloviſh. *Leaf-ſtalks* for the moſt part longer than the leaves. WITH.

Ponds and ſlow rivers, common. P. July. Aug.

The leaves floating upon the ſurface of the water afford an agreeable ſhade to fiſh, and are the habitation and food of the *Phalæna Potamogeton.*

boggy 2. *paludoſum.* Sheaths of the fruit-ſtalks and leaf-ſtalks not half the length of their reſpective ſtalks. WITH.—Stem growing in the air, aſcending. ST.

When it grows in a place which is dried up in the ſummer, it ſurpriſingly changes its appearance, growing upright, and reſembling a ſmall Plantago. LINN. *lapp. p.* 44. Mr. WOODWARD. ST.—*Spike* nearly 1 inch long. *Bloſs.* (or rather cup) fleſhy, green. CHIVES, *Tips* very large. *Duſt* white. POINT. *Summits* very indiſtinct; brown. *Fruit-ſtalks* about twice as long as the ſpike. *Leaves* alternate, except the upper pair, which are oppoſite; *lower* ones ſpear-ſhaped, on long leaf-ſtalks; *upper* ones oval, with ſhorter leaf-ſtalks. *Stem* about 4 inches high. *Sheaths of the leaf-ſtalks* ſeem ſoon to decay. Flowers a month or ſix weeks earlier than variety 1. WITH.—*Leaves* 3 or 4 times leſs, more pointed. ST.

[Boggy ground on Birmingham Heath. WITH.——And Sutton Park, Warwickſhire, in places where ſtagnant water has been dried up or drained off. ST.] P. May.—Aug.

perfoliate POTAMOGE'TON *perfolia'tum.* Leaves heart-ſhaped, embracing the ſtem.—

Fl. dan. 196.—*Dod.* 582. 3, *repr. in Ger. em.* 822. 3, *cop. in J. B.* iii. 778. 2, *Pet.* 5. 6, *and H. ox.* v. 29. *row* 2. 3. *at p.* 596.

Leaves alternate, but where a joint throws out a fruit-ſtalk, in pairs, ribbed. *Leaf-ſcales* none, or very ſhort. HALL. ST. Mr. WOODWARD.—*Leaves* with from 5 to 7 principal ribs, with intermediate finer ones, ending in the point of the leaf. ST.

heart β. HUDS.—*Pet.* 5. 7, *probably a copy of Loes.* 65.

My ſpecimens ſeem to evince that theſe varieties run into one another. ST.—*Bloſs.* yelloviſh.

Rivers

Rivers and ponds, frequent. P. June.—Aug.
Goats and Cows eat it. Horſes, Sheep, and Swine refuſe it.

POTAMOGE'TON *lu'cens*. Leaves flat, ſpear-ſhaped, tapering down into leaf-ſtalks.— *long-leaved*

Fl. dan. 195.—*Pet.* 5. 5.—*J. B.* iii. 777. 1.—*Dod.* 582. 2, *repr. in Ger.* 822. 4.—*Hiſt. ox.* v. 29. 4. *at p.* 596.

Rivers and ponds. P. June. July.

1. RAY.—Leaves truly ſpear-ſhaped. ST. narrow leaved

Potamog. lucid. lapathi foliis longiſſimis. PLUK. *amalth.* 177. *R. ſyn.* 148. *n.* 2.

River Clyde. LIGHTF.

2. RAY. *ib.*—Leaves ſomewhat elliptical. Mr. WOODWARD. ST. broad-leaved —Surface covered with a network of pellucid veins. *Bloſſoms* reddiſh. WITH.—*Stem* cylindrical. *Leaves* very entire, ſomewhat waved at the edge, ribbed. POLLICH. ST.——Egg-ſpear-ſhaped, bluntiſh, ſitting, alternate, but thoſe at the baſe of the fruit-ſtalks oppoſite; *ribs* numerous, about a line between each. *Leaf-ſcales* awl-ſhaped, riſing from the joint at the inſertion of the leaf, and ſheathing the part of the ſtem above. ST.

River at Tamworth. ST.

3. Leaves very taper-pointed from the mid-rib, extending a great length beyond the body of the leaf. Mr. WOODWARD. ſharp-leaved

Ger. em. 822. 4, *expreſſes this tho' but very imperfectly.* Mr. WOODW.

[R. Waveney, by Bungay, Suffolk. Mr. WOODWARD.]

POTAMOGE'TON *den'ſum*. Leaves egg-ſhaped, taper-pointed, oppoſite, crowded. Stems forked. Spike with 4 flowers.— *cloſe-leaved*

J. B. iii. 777. 2, *leaves far aſunder and ſome of the fruit-ſtalks from the ſides of the ſtem.—(Cluſ.* ii, 252. 2, *repr. in Ger. em.* 824. 3; *cop. in Park.* 1248. 3; *and Pet.* 5. 8, *is P. criſpum.—Cluſ. has not given any fig. of the plant referred to by Linn.)*

Fruit-ſtalk very ſhort, from the fork of the ſtem. LINN.—Bent back. *Leaves* towards the end of the ſtem tiled. *Spike* ſmall. *Flowers* few, ſitting. HALL. Mr. WOODWARD. ST.—*Leaves* waved at the edge. Mr. WOODWARD. ST.—Three-ribbed; edge very finely ſerrated. WITH. ST.—Serratures, or rather minute prickles, not viſible, unleſs conſiderably magnified. *Leaves*, lateral ribs juſt perceptible to the naked eye, and joining the middle rib at ſome diſtance from the point, forming, as it were, an ellipſis within the diſc of the leaf. ST.

Leſſer Water Caltrops. Frogs Lettuce.

Ditches and ſlow ſtreams. P. May. June.

POTA-

curled POTAMOGE'TON *criſpum.* Leaves ſpear-ſhaped; alternate or oppoſite, waved and ſerrated.—

Curt. iv. 49.—*Ger. em.* 824. 2, *cop. in Park.* 1248, 2, *Pet.* 5. 9, *and J. B.* iii. 778. 1.—*Cluſ.* ii. 252, 2, *repr. in Ger. em.* 824. 3; *cop. in Park.* 1248. 3, *and Pet.* 5. 8, *as is evident from Cluſ. deſcription.*

Stem compreſſed. RAY. WITH. ST.—In which it agrees with the *compreſſum*, and differs from the reſt. RAY. ST.—*Leaves* with 3 parallel ribs, connected laterally by tranſverſe ramifications; edges parallel for the greater part of their length. HALL. ST.—*Leaves* alternate, but at the forks of the ſtem oppoſite. POLLICH. WITH. ST.—Ending rather obtuſely, very finely ſerrated. *Fruit-ſtalks* from the forks of the ſtem. POLLICH. ST. —— *Leaves* oblong-ſpear-ſhaped; lateral ribs meet as they approach the point, forming a circular line parallel to the margin of the leaf, without theſe on each ſide is a ſtill finer rib running cloſe to the edge. *Fruit-ſtalks* generally ſhorter than the leaves, but ſometimes more than twice as long, correſponding with Cluſ. fig. ST.—*Bloſs.* white or reddiſh. *Stems* branched. *Leaves* ſitting, ſemi-tranſparent and very criſp. WITH.

Greater water Caltrops.

Ponds and ſlow ſtreams, very common. P. May. June.

ſerrated POTAMOGE'TON *ſerra'tum.* Leaves ſpear-ſhaped, oppoſite, a little waved at the edges.—

J. B. 988. 4, *but leaves, both deſcription and figure, as alternate.—(Fl. dan.* 195, *Dod.* 582. 2, *and Pet.* 5. 5, *is P. lucens.)*

Is it not a variety of *P. criſpum?* LINN. Mr. WOODWARD.—It is at leaſt very cloſely allied to it.

Leaves, upper ones oppoſite, lower ones ſometimes alternate. HUDS.—*Sheaths* fringed. SCOP.—*Bloſs.* greeniſh yellow, on fruit-ſtalks. WITH.—Wiggers complains that the generality of authors have confounded this with the *lucens*, but he ſeems to me only to have tranſpoſed the characters of the 2 ſpecies. ST.

Slow rivers. P. June.

flat-ſtalked POTAMOGE'TON *compreſſum.* Leaves ſtrap-ſhaped, blunt. Stem flatted.—

Fl. dan. 203.—*Pet.* 5. 10.—*(In Ray* 4. 3, *the leaves are ſeveral times broader than the ſtem.)*

Leaves ſometimes alternate, ſometimes oppoſite. LINN.—*Leaves* alternate, but thoſe at the baſe of the fruit-ſtalks oppoſite. RAY. *hiſt.* Mr. WOODWARD.—The mid-rib ſtrong, white. Mr. WOODW.—

Leaves

Leaves very entire. *Leaf-ſcales* ſhort. POLLICH.—*Stem* nearly as broad as the leaves. ST.—*Bloſſoms* greeniſh; on ſhort ſpikes. WITH.
Slow ſtreams and ditches. P. June. July.

POTAMOGE'TON *pectina'tum*. Leaves briſtle-ſhaped, parallel, near together, pointing 2 ways.— *fennel-leaved*
Ger. em. 828. 4.—*Pet.* 5. 13.—*Pluk.* 216. 5.—(*Pet.* 5. 12, *has ſtrap-ſhaped leaves.*)
Stem cylindrical. *Leaves* flatted. *Bloſs.* whitiſh. *Tips* yellow. WITH.
Rivers and ponds. [River Waveney, frequent. Mr. WOODW.] P. May.—July.

POTAMOGE'TON *gramin'eum*. Leaves between ſtrap and ſpear-ſhaped, alternate, ſitting; broader than the props.— *graſs-leaved*
Fl. dan. 222.—*Ray* 4. 3.—*Pet.* 5. 12?—(*Pet.* 5. 10, *is P. compreſſum.*)
The *leaves* at the baſe of the fruit-ſtalks oppoſite. *Leaf-ſcales* very numerous and large. HALL.—*Fl. dan. and Ray* are both referred to by Linnæus and Haller.—But Mr. Lightf. has very juſtly remarked the want of leaf-ſcales in the fig. of Ray. I ſuſpect they will turn out to be 2 ſpecies. *Ray* 4. 3, is the fig. referred to in the Sp. pl. and with which my ſpecimens correſpond.—*Leaf-ſcales* much narrower than the leaves, and ſo as eaſily to eſcape the attention of a common artiſt; *rather ſtrap-ſhaped, bluntiſh, and ſet cloſe*, as in Ray's figure; not *ſpear-ſhaped, tapering to a point, toothed, and at a conſiderable diſtance from each other*, as in that of the Fl. dan.—Ribs 3; very finely ſerrated as the *Potamogeiton alterum noſtras, &c. with long, blunt, ſhining leaves, very minutely notched of* PLUK. *amal.* 177, *and R. ſyn.* 150. *n.* 11.—Haller deſcribes the leaves of his as gradually diminiſhing, which correſponds with the fig. of the Fl. dan. ST.
Slow ſtreams and marſhy ditches. P. July.

POTAMOGE'TON *mari'num*. Leaves ſtrap-ſhaped, alternate, diſtinct; the baſe ſheathing the ſtem.— *ſea*
Fl. dan. 186.—*Vaill.* 32. 5.—*H. ox.* v. 29. 9, *at p.* 596.—(*Pet.* 5. 13, *and Pluk.* 216. 5, *are P. pectinatum.*)
The *props* not diſtinct in this, as in the other ſpecies, but the leaves fixed to them. LINN.——*Leaves* growing from the ſheaths, which are ſlightly forked at the extremity as in *P. pectinatum*. In ſtagnant ſalt water ditches the whole plant is ſhorter; the branches and leaves cloſer and more frequent. In running water, whether ſalt or freſh, it grows to a vaſt length, and the branches and leaves are farther

farther asunder, but in both cases preserve their parallelism. *Spike* long; with sitting flowers, growing mostly in interrupted whorls. Fl. dan. 186 more exactly resembles onr fresh than salt water plants, though quoted in *Syst. Veget.* for P. marinum. Mr. WOODWARD. —Leaves scarcely a line broad. POLLICH. ST.——In quite fresh water it becomes the *P. pectinatum*. Mr. CROWE. Mr. WOODWARD.——What I have been accustomed to refer to the *marinum* have grown in fresh water, as those of *Pollich. and Vaill. (par. p.* 164. *n.* 8.) If, however, such should prove to be the *pectinatum*, Linnæus's characteristic mark of the *marinum*, of its leaves growing on leaf-sheaths, will appear to be by no means peculiar to that species.—Reichard's references to Haller in this species and the *pusillum* are transposed. ST.

Salt water ditches. [Near Yarmouth. Mr. WOODWARD.]

A. LINN. P. HUDS. July. Aug.

small POTAMOGE'TON *pusil'lum*. Leaves strap-shaped, opposite, alternately distinct, expanding at the base. Stem cylindrical.—

Vaill. 32. 4.—*Pet.* 5. 11. *(Fl. dan.* 186, *is, without doubt,* P. *marinum.)*

Leaves rather pointed, very entire. POLLICH. ST.—Alternate; but those at the base of the fruit-stalks opposite. NECK. ST.—See observation at the end of the generic character. ST.—*Spikes* very small, composed of but few flowers. HALL. Mr. WOODWARD.—*Spikes* of 6 or 8 florets, placed opposite to each other. *Fruit-stalks* about 1 inch long. SCOP.—*Leaves* rather longer than the joints of the stem; *upper* ones opposite; *lower* ones alternate. *Fruit-stalks* terminating, sheathed at the base by 2 concave, skinny, spear-shaped scales. *Spikes* terminating, nearly globular, about 3 flowers in each. *Summits* a little hollow at the top. WITH.

Ponds in clayey soil. [About Tamworth, Warwickshi. WITH.]

A. LINN. P. HUDS. June.—Aug.

187. RUPPIA. Taſſelgraſs.

EMPAL. *Sheath*, hardly any but what is formed by the baſe of the leaves. *Sheathed fruit-ſtalk* awl-ſhaped; undivided; ſtraight; bending when the fruit ripens; beſet with flowers which point in 2 oppoſite directions. *Cup* none.

BLOSS. None.

CHIVES. *Threads* none. *Tips* 4; ſitting; equal; ſomewhat roundiſh; rather double.

POINT. *Seed-buds* 4 or 5; ſomewhat egg-ſhaped; approaching. *Shaft* none. *Summits* blunt.

S. VESS. None. The ſeeds are ſupported upon little foot-ſtalks, thread-ſhaped, and as long as the fruit.

SEEDS. 4 or 5; egg-ſhaped; oblique; terminated by a flat circular ſummit.

ESS. CHAR. *Bloſs.* 0. *Empal.* 0. *Seeds* 4, *on little foot-ſtalks.*

RUPPIA *marit'ima.* *ſea*

Fl. dan. 364.—*Mich.* 35.—*Pluk.* 248. 4, *cop. in Pet.* 6. 1.—*Lightf.* 8. 1.—*Lob. obſ.* 653. 1.—*Fructificat. Ray* 6. 1. *at p.* 168. Mr. WOODWARD.

Stem undivided. *Leaves* alternate. *Flowers* on fruit-ſtalks. *Bot. Arr. ed.* I.

Taſſel Pondweed.

Salt water ditches; [near Yarmouth. Mr. WOODWARD.]

A. LINN. P. HUDS. July. Aug.

Claſs V.

PENTANDRIA.

V. CHIVES.

THE firſt diviſion of the firſt ORDER of this claſs, includes the plants with ROUGH LEAVES; which admit of the following natural character:

EMPAL. *Cup* 1 leaf; with 5 clefts, or 5 diviſions: permanent.
BLOSS. 1 petal; with 5 clefts.
CHIVES. *Threads* 5, fixed to the tube of the bloſſom.
POINT. *Seed-buds* 4. *Shaft* ſingle; thread-ſhaped. *Summit* blunt.
S. VESS. None.
SEEDS. 4; incloſed by the cup.

MARTYN *Cat. Cant.* 26.

OBS. Leaves rough and hairy; alternate, or ſcattered; without leaf-ſtalks. Spikes *before the flowers open, rolled back ſpirally.* Virtues *ſlightly aſtringent, and* ſometimes narcotic. MARTYN, *ib.* *But* LINN. *deſcribes them as mucilaginous and eſculent.* Phil. bot. 340. As there is no ſeed-veſſel, the cup does not fall off, but remains after the bloſſom decays, and contains the ſeeds.

In the ſecond diviſion of this order, thoſe plants which bear berries and have a bloſſom compoſed of one petal, are generally poiſonous.

The 3d diviſion of the SECOND ORDER conſiſts of plants whoſe flowers are diſpoſed in RUNDLES; or the *Umbelliferous* plants of many authors. They admit of the following natural character:

Rundle compoſed of ſeveral *Rundlets*.
Fence, general, incloſing the whole rundle, or *partial*, incloſing only the rundlets.

EMPAL.

EMPAL. *Cup* hardly diſcernible.
BLOSS. 5 petals; ſtanding on the ſeed-bud; ſhedding. *Petals* generally heart-ſhaped, and bent inwards.
CHIVES. *Threads* 5; ſimple; hair-like. *Tips* ſimple, or roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2, generally diſtant. *Summits* ſimple.
S. VESS. None.
SEEDS. 2; ſcored; convex on one ſide, flat on the other.
MARTYN *Cat. Cant.*

OBS. Stems hollow and pithy. Leaves alternate.

In dry ſituations theſe plants are aromatic and carminative: in moiſt ones, often poiſonous. MARTYN. *ib.* The greateſt virtues are contained in the ſeeds and roots. Many of them are eaten at our tables, as the roots of CARROT and PARSNEP, and the leaves of CELERY. The ſeeds of CORIANDER and CARAWAY are uſed in confectionary.

Claſs V.

PENTANDRIA.

V. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

* Flowers *of* 1 *petal; beneath.* Seeds 4; *naked.* ROUGH LEAVES.

203. EC'HIUM. - - *Bloſs.* mouth naked; irregular; bell-ſhaped.

196. PULMONA'RIA. - *Bloſs.* mouth naked; funnel-ſhaped. *Cup* priſm-ſhaped.

193. LITHOSPER'MUM. *Bloſs.* mouth naked; funnel-ſhaped. *Cup* with 5 diviſions.

197. SYM'PHYTUM. - *Bloſs.* mouth toothed; bellying.

200. BORA'GO. - - *Bloſs.* mouth toothed; wheel-ſhaped.

202. LYCOP'SIS. - - *Bloſs.* mouth covered; funnel-ſhaped. *Tube* crooked!

201. ASPERU'GO. - - *Bloſs.* mouth covered; funnel-ſhaped. *Fruit* compreſſed,

195. CYNOGLOS'SUM. *Bloſs.* mouth covered; funnel-ſhaped. *Seeds* depreſſed, fixed by the ſide.

194. ANCHU'SA. - - *Bloſs.* mouth covered; funnel-ſhaped. *Tube* priſm-ſhaped at the baſe.

192. MYOSO'TIS. - - *Bloſs.* mouth covered; ſalver-ſhaped. *Segments* notched.

** Flowers *of* 1 *petal; beneath.* Seeds *in a veſſel.*

220. ANAGAL'LIS. - - *Capſule* 1-celled; cut round. *Bloſs.* wheel-ſhaped. *Summit* a knob.

219. LYSIMAC'HIA. - *Capſ.* of 1 cell, and 10 valves. *Bloſs.* wheel-ſhaped. *Summit* blunt.

210. PRI'MULA. - - *Capſule* 1-celled. *Bloſs.* funnel-ſhaped: mouth open. *Summit* globular.

216. HOTTO'NIA. - - *Capſ.* 1-celled. *Bloſs.* the tube beneath the chives! *Summit* globular.

215. MENYAN'THES. - *Capſ.* 1-celled. *Bloſſom* ſhaggy. *Summit* cloven.

231. CONVOL'VULUS. *Capſ.* 2-celled; 2-ſeeded. *Bloſs.* bell-ſhaped. *Summit* cloven.

263. DATU'RA. - - *Capſ.* 2-celled; 4-valved! *Bloſs.* funnel-ſhaped. *Cup* deciduous.

264. HYOSCY'AMUS. - *Capſ.* 2-celled; covered with a lid! *Bloſs.* funnel-ſhaped. *Summit* a knob.

262. VERBAS'CUM. - - *Capſ.* 2-celled. *Bloſs.* wheel-ſhaped. *Summit* blunt. *Chives* declining.

275. CHIRO'NIA. - - *Capſ.* 2-celled. *Bloſs.* jug-ſhaped. *Tips* ſpirally twiſted after ſhedding their duſt.

233. POLEMO'NIUM. - *Capſ.* 3-celled. *Bloſs.* with 5 diviſions. *Chives* on the valves of the tube.

226. AZAL'EA. - - *Capſ.* 5-celled. *Bloſs.* bell-ſhaped. *Summit* blunt.

322. VIN'CA. - - - *S. Veſſ.* 2 upright little bags. *Bloſs.* ſalver-ſhaped. *Seeds* not winged. - - -

268. SOLA'NUM. - - *Berry* 2-celled. *Tips* with 2 holes in each.

266. AT'ROPA. - - *Berry* 2-celled. *Chives* diſtant; bowed inwards.

† Gentiana Centaurium.

*** Flowers *of* 1 *petal; ſuperior.*

238. SAM'OLUS. - - *Capſ.* 1-celled; and 5 valves at the top. *Bloſs.* ſalver-ſhaped. *Summit* a knob.

236. PHYTEU'MA. - - *Capſ.* 2 or 3-celled; perforated. *Bloſs.* with 5 diviſions. *Summit* with 2 or 3 clefts.

234. CAMPAN'ULA. - - *Capſ.* 3 or 5-celled; perforated. *Bloſs.* bell-ſhaped. *Summit* 3-clefted.

250. LONICE'RA. - - *Berry* 2-celled, roundiſh. *Bloſs.* unequal. *Summit* a knob.

† Viburnum Lantana. Lobelia. Rubia peregrina.

**** Flowers *of* 5 *petals; beneath.*

284. RHAM'NUS. - - *Berry* 3-celled; globular. *Cup* tubular, reſembling a bloſſom; with 5 converging ſcales at the mouth.

291. EUON'YMUS. - - *Berry* reſembling a capſule, lobed. *Cup* expanding. *Seed* like a berry; covered with an outer coat.

† Viola Impatiens.

***** Flowers *of* 5 *petals; ſuperior.*

301. RI'BES. - - - *Berry* many-ſeeded. *Petals* ſtanding on the cup. *Shaft* cloven.

304. HED'ERA. - - *Berry* 5-ſeeded. *Cup* binding round the fruit. *Summit* ſimple.

† Jaſione.

****** Flowers *imperfect; beneath.*

313. ILLEC'EBRUM. - *Capſ.* 1-ſeeded; 5-valved. *Cup* ſimple; rough and inelegant.

314. GLAU'X. - - - *Capſ.* 5-ſeeded; and 5-valved. *Cup* ſimple; bell-ſhaped; rough and inelegant.

† Polygonum amphibium. Atriplex. Salſola. Chenopodium maritimum.

******* Flowers *imperfect; ſuperior.*

315. THE'SIUM. - - *Seed* 1, crowned. *Cup* bearing the chives.

Order

Order II.

DIGYNIA; II. POINTALS.

* Flowers *of* 1 *petal; beneath.*

351. SWER'TIA. - - *Capſ.* 1-celled; 2 valved. *Bloſs.* wheel-ſhaped, with 5 honey-cup pores.

352. GENTIA'NA. - - *Capſ.* 1-celled, 2-valved. *Bloſs.* tubular; variouſly ſhaped.

† Cuſcuta.

** Flowers *of* 5 *petals; beneath.*

† Staphylea pinnata.

*** Flowers *imperfect.*

339. SAL'SOLA. - - *Seed* 1; reſembling a ſnail-ſhell, covered. *Cup* 5 leaves.

337. CHENOPO'DIUM. *Seed* 1; round and flat. *Cup* 5 concave leaves.

338. BE'TA. - - - *Seed* 1; kidney-ſhaped. *Cup* 5 leaves; with the ſeed at the bottom.

336. HERNIA'RIA. - - *Seed* 1; egg-ſhaped; covered. *Cup* with 5 diviſions. *Threads* 5 with, and 5 without tips.

345. UL'MUS. - - - *Berry* not juicy; compreſſed. *Cup* 1 leaf; ſoon ſhrivelling.

† Scleranthus annuus, perennis. Cuſcuta europœa.

**** Flowers *of* 5 *petals; ſuperior—and* 2 *ſeeds. In* RUNDLES.

A. FENCE *both general and partial.*

354. ERYNG'IUM. - *Florets* in globular heads. *Receptacle* chaffy.

355. HYDROCOT'YLE. *Florets* in a ſort of rundle; fertile. *Seeds* compreſſed.

356. SANIC'ULA. - - *Florets* in a ſort of rundle; thoſe in the centre barren. *Seeds* covered with ſharp points.

375. Heracle'um. - *Florets* unequal; almoſt all fertile. *Fence* deciduous. *Seeds* membranaceous.

382. Oenan'the. - - *Florets* unequal; thoſe in the circumference barren. *Fence* ſimple. *Seeds* crowned; ſitting.

359. Echinoph'ora. *Florets* unequal; ſeveral barren. *Fence* ſimple. *Seeds* ſitting.

362. Cau'calis. - - *Florets* unequal; thoſe in the centre barren. *Fence* ſimple. *Seeds* covered with ſharp points.

364. Dau'cus. - - *Florets* unequal; thoſe in the centre barrren. *Fence* winged. *Seeds* covered with prickles.

361. Tordyl'ium. - - *Florets* unequal; all fertile. *Fence* ſimple. *Seeds* with a ſcolloped border.

370. Peuced'anum. *Florets* equal; thoſe in the centre barren. *Fence* ſimple. *Seeds* ſcored; flatted.

367. Co'nium. - - *Florets* equal; all fertile. *Petals* heart-ſhaped. *Partial fence* extending but ½ way round. *Seeds* bellying; ribbed and furrowed.

366. Bu'nium. - - *Florets* equal; all fertile. *Petals* heart-ſhaped. *Partial fence* briſtle-ſhaped.

369. Athaman'ta. - *Florets* equal; all fertile. *Petals* heart-ſhaped. *Seeds* convex, ſcored.

358. Bupleu'rum. - *Florets* equal; all fertile. *Petals* rolled inwards. *(The undivided leaves of the partial fence often reſemble petals.)*

378. Si'um. - - - *Florets* equal; all fertile. *Petals* heart-ſhaped. *Seeds* nearly egg-ſhaped; ſcored.

368. Seli'num. - - *Florets* equal; all fertile. *Petals* heart-ſhaped. *Seeds* flatted; ſcored.

371. Crith'mum. - - *Florets* equal; all fertile. *Petals* rather flat. *Fence* horizontal.

376. Ligus'ticum. - *Florets* equal; all fertile. *Petals* rolled inwards. *Fence* membranaceous.

377. Angel'ica.

377. ANGEL'ICA. - - *Florets* equal; all fertile. *Petals* rather flat. *Rundlets* globular.

379. SI'SON. - - - *Florets* equal; all fertile. *Petals* rather flat. *Rundlets* of few florets.

† Coriandrum. Apium graveolens.

B. FENCE *only partial.*

385. ÆTHU'SA. - - *Florets* rather unequal; all fertile. *Partial fence* extending but half way round.

386. CORIAN'DRUM. - *Florets* unequal; some of them barren. *Fruit* nearly globular.

387. SCAN'DIX. - - - *Florets* unequal; those in the centre barren. *Fruit* oblong.

388. CHÆROPHYL'LUM. *Florets* unequal; those in the centre generally barren. *Fruit* nearly globular. (Partial fence 5 leaves.)

383. PHELLAN'DRIUM. *Florets* nearly equal; all fertile. *Fruit* crowned.

389. IMPERATO'RIA. - *Florets* nearly equal; all fertile. *Rundle* expanded and flat.

384. CICU'TA. - - - *Florets* nearly equal; all fertile. *Petals* rather flat.

† Bupleurum rotundifolium. Heracleum Sphondylium. Oenanthe crocata. Caucalis leptophylla. Angelica sylvestris. Bunium Bulbocastanum.

C. FENCE 0; *neither general nor partial.*

93. SMYR'NIUM. - *Florets* equal; those in the centre barren. *Seeds* kidney-shaped; angular.

35. CA'RUM. - - *Florets* nearly equal; those in the centre barren. *Seeds* bellying; scored.

392. PASTINA'CA. - - *Florets* nearly equal; all fertile. *Seeds* depressed and flat.

394. ANE'THUM. - - *Florets* nearly equal; all fertile. *Seeds* bordered; scored.

398. Ægopo'dium. - *Florets* nearly equal; all fertile. *Seeds* bellying; scored. *Petals* heart-shaped.

397. A'pium. - - - *Florets* equal; almost all fertile. *Seeds* minute; scored. *Petals* bent inwards.

369. Pimpinel'la. - *Florets* nearly equal; all fertile. *Petals* heart-shaped. *Rundles* before flowering, nodding.

Order III.

TRIGYNIA; III. POINTALS.

* Blossoms *superior*.

400. Vibur'num. - - *Blos.* 5-clefted. *Berry* 1-seeded.

402. Sambu'cus. - - *Blos.* 5-clefted. *Berry* 3-seeded.

** Blossoms *beneath*.

404. Staphyle'a. - *Blos.* 5-petaled. *Caps.* with 2 or 3 clefts; inflated.

411. Alsi'ne. - - - *Blos.* 5-petals. *Caps.* 1-celled. *Cup* 5-leaved. *Petals* cloven.

409. Corrigi'ola. - *Blos.* 5-petaled. *Seed* 3-cornered. *Cup* with 5 divisions.

† Montia fontana. Arenaria rubra; marina. Salsola fruticosa. Holosteum umbellatum. Chenopodium maritimum.

Order IV.

TETRAGYNIA; IV. POINTALS.

415. Parnas'sia. - - *Blos.* 5-petaled. *Caps.* 4-valved. *Honeycups* 5; fringed with glands.

Order V.

PENTAGYNIA; V. POINTALS.

419. Li'num. - - - *Blos.* 5-petaled. *Caps.* 10-celled; 2-seeded.

421. Dr'sera.

421. DRO'SERA. - - *Blofs.* 5-petaled. *Capf.* 1-celled; opening at the top.

425. SIBBAL'DIA. - - *Blofs.* 5-petaled. *Seeds* 5. Cup 10-cleſted.

418. STAT'ICE. - - *Blofs.* with 5 diviſions. *Seed* 1; encloſed in the funnel-ſhaped cup.

† Ceraſtium ſemidecandrium. Spergula pentandria. Geranium. Sagina procumbens.

Order VI.

POLYGYNIA; MANY POINTALS.

426. MYOSU'RUS. - - *Cup* 5-leaved. *Honeycups* 5; tongue-ſhaped. *Seeds* numerous.

† Ranunculus hederaceus.

192. MYOSO'TIS. Scorpiongraſs.

EMPAL. *Cup* with 5 ſhallow clefts; oblong; upright; ſharp; permanent.

BLOSS. 1 petal; ſalver-ſhaped. *Tube* cylindrical; ſhort. *Border* flat; with 5 ſhallow clefts. *Segments* blunt; notched at the end. *Mouth* cloſed with 5 convex, prominent, approaching valves.

CHIVES. *Threads* 5, very ſhort; fixed to the neck of the tube. *Tips* very ſmall; covered.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; as long as the tube of the bloſſom. *Summit* blunt.

S. VESS. None. The *Cup* enlarged and upright contains the ſeeds within it.

SEEDS. 4; egg-ſhaped; tapering; ſmooth.

ESS. CHAR. *Bloſs. ſalver-ſhaped, with 5 clefts, nicked; Mouth cloſed with a vaulted roof.*

mouſe-ear MYOSO'TIS *ſcorpioi'des*. Seeds ſmooth. Points of the leaves callous.

Bloſſoms in a long ſpirally twiſted ſpike. Apr.—Aug.

When it grows in the water, and its taſte and ſmell are thereby rendered leſs obſervable, Sheep will ſometimes eat it, but it is generally fatal to them.——Cows, Horſes, Swine, and Goats refuſe it.

field α. *arvenſis*. Leaves hairy.

Fl. dan. 583.—*Dod.* 72, *repr. in Lob. obſ.* 245. 4, *Ger. em.* 337. 4; *and cop. in Park.* 691. 7, *and H. ox.* xi. 31. *row* 2. 1.—*J. B.* iii. 589. 2.

Dry meadows, corn fields, and gardens.

Seeds ſhining. SCOP. WITH.——*Stem-leaves* egg-ſpear-ſhaped. *Empal.* divided more than half way down. *Bloſs.* ſome of the ſegments very entire; *valves* bright yellow, convex above, and hollow underneath, the tips being placed in the hollow. *Summits* 2, globular, very minute. *Seeds* compreſſed. WITH.

yellow β. Bloſſoms yellow. RAY. HUDS. ST.

flowered In very dry ſituations it has ſometimes blue and yellow flowers on the ſame plant. Mr. WOODWARD.

Walls, dry paſtures, and ſandy places. A.

broad-leaved γ. HUDS. Leaves broad, hairy. Bloſſoms larger than α and flowers earlier.

In woods. A. RAY.

Ray 9. 2. *at p.* 128.—*Barr.* 404?

δ. *paluſtris*.

β. *paluſtris.* Leaves ſmooth. water
Curt. iii. 28.—*Ger. em.* 337. 3, *cop. in Park.* 691. 8, *and H. ox.* xi. 31. *row* 2. 4.—*(Barr.* 404, *from its place of growth, habit, and hairy leaves ſeems rather to be* γ.)
Ditches, ſprings, and rivulets. P.*

193. LITHOSPER'MUM. Gromwell.

EMPAL. *Cup* with 5 diviſions; oblong; ſtraight; pointed; permanent. *Segments* awl-ſhaped; keeled.
BLOSS. 1 petal, funnel-ſhaped; as long as the empalement. *Tube* cylindrical. *Border* with 5 ſhallow clefts; blunt, upright. *Mouth* open, naked.
CHIVES. *Threads* 5, very ſhort. *Tips* oblong, in the mouth of the bloſſom.
POINT. *Seed-buds* 4. Shaft thread-ſhaped; as long as the tube of the bloſſom. *Summit* blunt; cloven.
S. VESS. None. The ſeeds are contained in the bottom of the open cup, which is longer than the ſeeds.
SEEDS. 4, egg-ſhaped; tapering; hard; ſmooth.
ESS. CHAR. *Bloſs. funnel-ſhaped, open and naked at the mouth. Empal. with* 5 *diviſions.*

LITHOSPER'MUM *officina'le.* Seeds ſmooth. *common*
Bloſſoms hardly longer than the cup. Leaves ſpear-ſhaped.
Ludw. 147.—*Dod.* 83. 2, *repr. in Ger. em.* 609. 2, *and cop. in Park.* 432. 1, *and H. ox.* xi. 31. *row* 1. 1.—*Ger.* 486. 2.—*Matth.* 918.—*Fuchſ.* 489, *cop. in Trag.* 536, *and J. B.* iii. 590. 2.—*(Blackw. is L. arvenſe.)*
Bloſſoms white. *Seeds* as hard as bone. LINN.
Gromill. Graymill.
Dry gravelly ſoil. P. May. June.
Grew ſays the ſeeds have ſo much earth in their compoſition that they effervеſce with acids, but Linnæus contradicts this aſſertion.
Sheep and Goats eat it.—Cows and Horſes refuſe it.

LITHOSPER'MUM *arven'ſe.* Seeds wrinkled. *corn*
Bloſſoms hardly longer than the cups.
Riv.

* This being perennial, while the reſt are annuals, has led Haller to make it a diſtinct ſpecies, and yet variety β. which Ray aſſerts to be annual, he has arranged as a variety of this. The varieties of this ſpecies in the hands of the cultivating botaniſt, might form the ſubject of a courſe of very intereſting experiments. ST.

Riv. mon. 9. 1.—*Fl. dan.* 456.—*Blackw.* 436.—*H. ox.* xi. 28. 7.—*Ger. em.* 610. 4, *cop. in Park.* 432. 6.—*Matth.* 917, *ſeeds, I ſuſpect, fictitious.*

Stems very rough. *Leaves* betwixt ſtrap and ſpear-ſhaped, hairy. *Empal. ſegments* beſet with long white hairs. *Bloſs.* hairy on the outſide; *tube* with ten glandular teeth at the baſe on the inſide. *Chives* very ſhort, inſerted near the baſe of the tube. *Shaft* not half as long as the tube. *Seeds* rather covered with tubercles than wrinkled. WITH.—*Bloſs.* white, on ſhort fruit-ſtalks. *Roots* reddiſh.

Baſtard Alkanet. Baſtard Gromill. Salfern. Painting Root.

Corn fields, common. A. May. June.

The girls in the North of Europe paint their faces with the juice of the root upon days of feſtivity.——The bark of the root tinges wax and oil of a beautiful red, ſimilar to that which is obtained from the root of the foreign Alkanet that is kept in the ſhops.

Sheep and Goats eat it. Cows are not fond of it. Horſes and Swine refuſe it.

creeping LITHOSPER'MUM *purpu'ro-cœru'leum.* Seeds ſmooth. Bloſſom ſeveral times longer than the cup.—

Jacq. fl. 14.—*Pet.* 29. 6.—*Cluſ.* ii. 163. 2, *repr. in Dod.* 83. 1, *Lob. obſ.* 245. 1, *Ger. em.* 609. 1, *and cop. in Park.* 431, *and H. ox.* xi. 31. 2.—*Pluk.* 76. 2.—*Ger.* 486. 1.—*J. B.* iii. 692. 1.—*(Matth.* 917, *ſeems rather L. arvenſe.—H. ox. ib.* 5, *a different plant.)*

The *barren ſtems* creeping and ſending forth roots. *Flowering ſtems* upright. *Bloſſoms* purple. LINN.

Mountainous and woody paſtures. P. June.

194. ANCHU'SA. Alkanet.

EMPAL. *Cup* with 5 diviſions; oblong; cylindrical; pointed; ſharp; permanent.

BLOSS. 1 petal; funnel-ſhaped. *Tube* cylindrical; as long as the empalement. *Border* with 5 ſhallow clefts; blunt; a little expanding. *Mouth* cloſed by 5 convex, prominent, oblong, approaching valves.

CHIVES. *Threads* 5, very ſhort; fixed to the mouth of the bloſs. *Tips* oblong; fixed ſideways; covered by the valves of the tube.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; as long as the chives. *Summit* blunt; notched.

S. VESS. None. The *Cup* growing larger and upright incloſes the ſeeds.

SEEDS. 4; rather long; blunt; bulging.

ESS. CHAR. *Bloſs. funnel-ſhaped, the mouth cloſed by a vaulted roof. Seeds hollowed out at the baſe.*

OBS. When the bloſſom is fully expanded it is nearly ſalver-ſhaped.

ANCHU'SA *ſempervi'rens*. Fruit-ſtalks in heads with 2 leaves to each head. LINN.——Or in leafy bunches in pairs. Leaves egg-ſhaped. ST.* *evergreen*

Munt. 117.—*H. ox.* xi. 26. 2.—*Lob. adv.* 247, *repr. in Ger. em.* 797. 3, *heads expanded as is ſometimes the caſe into ſpikes in pairs.*—*Ger.* 653. 3, *flowers on long naked fruit-ſtalks.*

Stems from the ſides of the crown of the root; upright, rough with hair. *Leaves* egg-ſtrap-ſhaped, on leaf-ſtalks; remote; ſpotted with white. *Fruit-ſtalks* riſing from the baſe of the leaves, bearing ſeveral flowers. *Floral-leaves* oppoſite, ſitting, ſpear-egg-ſhaped. *Bloſs.* blue; tube ſhort. LINN.—*Leaves* not ſpotted with white. *Empal.* ſet thick with long white briſtly hairs; ſegments rather longer than the tube of the bloſſom. *Bloſs. tube* with four corners at the baſe. *Threads* inſerted about the middle of the tube. *Tips* dark purple. *Summit* ſcored acroſs. *Seed-buds* embedded in a hollow glandular receptacle, 1 or 2 generally abortive. *Seeds* rough, of a bony hardneſs. WITH.

Road ſides and amongſt rubbiſh. [Haddiſcoe, Suffolk, Mr. WOODWARD; near Norwich, Mr. PITCHFORD; near Birmingham

* —Vel racemoſis, racemis foliatis conjugatis, foliis ovatis. ST.

ham on the Alceſter Road. WITH. near the Blanketts, Worceſter. Mr. BALLARD. ST.] P. May. June.

Cows, Horſes, Sheep, and Goats eat it. Swine are not fond of it.

195. CYNOGLOSS'UM. Houndstongue.

EMPAL. *Cup* with 5 diviſions; oblong; ſharp; permanent.

BLOSS. 1 petal; funnel-ſhaped; as long as the empalement. *Tube* cylindrical; ſhorter than the Border. *Border* with 5 ſhallow clefts; blunt. *Mouth* cloſed by 5 convex, prominent, approaching valves.

CHIVES. *Threads* 5; very ſhort; fixed to the mouth of the bloſſom. *Tips* roundiſh; naked.

POINT. *Seed-buds* 4. *Shaft* awl-ſhaped; as long as the chives; permanent. *Summit* notched at the end.

S. VESS. None; but the ſeed-coats of the four ſeeds; depreſſed, roundiſh, outwardly more blunt; rough; not opening; flat upon the outer ſide; fixed by their points.

SEEDS. 4; ſomewhat egg-ſhaped; bulging; tapering; ſmooth. (Hairy or woolly. SCOP.)

ESS. CHAR. *Bloſs. funnel-ſhaped; mouth cloſed by a vaulted roof. Seeds depreſſed, fixed to the ſhaft only by their inner edge.*

OBS. The eſſence of this genus conſiſts in having 4 ſeed-coats fixed to the ſhaft, each containing a ſingle ſeed.

great CYNOGLOSS'UM *officina'le*. Chives ſhorter than the bloſſom. Leaves broad; ſpear-ſhaped; ſitting; downy.—

Ludw. 81.—*Curt.* iv. 43.—*Matth.* 1190 *and* 1191, *cop. in Dod.* 54. 1 *and* 2, *repr. in Lob. obſ.* 313, *Ger. em.* 804. 1 *and* 1, *and which cop. in Park.* 511, *and* 512. 3.—*Blackw.* 249.—*Ger.* 659.—*H. ox.* xi. 30. 1 *and* 2.—*J. B.* iii. 598.—*(Fuchſ.* 408, *cop. in Trag.* 230, *has chives longer than the bloſs. and is Bugl. ſylv. tert. Bauh. pin. p.* 256.)

Seeds hedge-hogged. SCOP.—Whole *plant* downy, and ſoft to the touch. *Leaves* ſtrap-ſpear-ſhaped. *Empal. ſegments* oblong-egg-ſhaped, not ſharp. *Bloſs.* a marone or mulberry colour. *Valves* fringed. *Tips* oblong. WITH.

Road ſides and amongſt rubbiſh. P. June. Both

Both the root and leaves have been ſuſpected to poſſeſs narcotic properties, but ſome will not admit the fact. It is diſcarded from the preſent practice; but Mr. Ray ſays that Dr. Hulſe uſed a decoction of the roots inwardly, and cataplaſms of them outwardly in ſtrumous and ſcrophulous caſes.—Its ſcent is very diſagreeable, and very much reſembles that of mice. Mr. WALDRON HILL. St.

Goats eat it. Cows, Horſes, Sheep, and Swine refuſe it
It furniſhes food to the *Phalæna Domina*.

γ. LINN. HUDS. green-leaved
Park. 512. 5.

Stem with a ſlight hairineſs. *Leaves* not hoary, but of a dark green; ſmooth above. *Flowers* ſmaller, has not the hoarineſs, and is entirely deſtitute of the ſtrong ſcent of the *common Cynogloſſum*. BAUH. *prodr.*—*Leaves* rougher. POLLICH. St.

[Shady lanes about Worceſter. Mr. PITTS in *R. ſyn.* St.—Near the 3d mile ſtone on the road from Worceſter to Perſhore. NASH.]

196. PULMONA'RIA. Lungwort.

EMPAL. *Cup* 1 leaf; with 5 teeth; a 5-ſided priſm; permanent.

BLOSS. 1 petal; funnel-ſhaped. *Tube* cylindrical; as long as the empalement. *Border* with 5 ſhallow clefts; blunt; not quite upright. *Mouth* open.

CHIVES. *Threads* 5; very ſhort; in the mouth of the tube. *Tips* upright; approaching.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; ſhorter than the empalement. *Summit* blunt; notched at the end.

S. VESS. None. The *Empalement* unchanged contains the ſeeds in its baſe.

SEEDS. 4; roundiſh; blunt.

ESS. CHAR. *Bloſs. funnel-ſhaped. Mouth open. Empal. a 5-ſided priſm.*

PULMONA'RIA *officina'lis*. Empal. as long as the tube of the bloſſom. Root-leaves egg-heart-ſhaped; rough.— *broad-leaved*

Ludw. 45.—*Fl. dan.* 482.—*Blackw.* 376, *bloſſoms ill-coloured.*—*Ger.* 663. 4, *and* 662. 1.—*Cluſ.* ii. 199. 1, *repr. in Dod.* 135. 1, *Lob. obſ.* 317. 1, *and Ger. em.* 808. 1; *and cop. in H. ox.* xi. 29. 8.—*Walc.*—*Park. par.* 251. 1.—*J. B.* iii. 595.—*Matth.* 1040.—*(H. ox. ib.* 9, *and Pluk.* 227. 4, *are good repreſentations, but of a variety different from the common.)*

Bloſſoms purple when newly expanded, but afterwards blue. Stems rough. Tube of the bloſſom white; mouth hairy.

Spotted Lungwort. Cowſlips of Jeruſalem.

Woods. P. May.

When burnt it affords a larger quantity of aſhes than almoſt any other vegetable; often 1-7th of its weight.

Sheep and Goats eat it. Cows are not fond of it. Horſes and Swine refuſe it.—The *Chryſomela nemorum* feeds upon it.

This ſpecies is given on the authority of Mr. Hudſon, who refers to *Fl. dan.* 482, the *P. officinalis*, and alſo to *Ger. em.* 808. 2, *R. ſyn.* 226. which is the *P. anguſtifolia*, and gives no place of growth except one tranſcribed from Ray.—The following is given conformable to the authority of Ray.

narrowleaved PULMONA'RIA *anguſtifo'lia.* Root-leaves ſpear-ſhaped.—

Fl. dan. 483.—*Ger.* 662. 2.—*Cluſ.* ii. 170. 1, *rep. in Ger. em.* 808. 2, *and cop. in H. ox.* xi. 29. *row* 2. 5.—*Park. par.* 251. 2.—*(H. ox. ib.* 10, *and J. B.* iii. 596, *is a different plant.)*

Bugloſs-Cowſlips. Long-leaved Sage of Jeruſalem.

"Mr. Goodyer found it in a wood by Holbury Houſe in the "New Foreſt, Hampſhire." JOHNSON *in Ger. em. p.* 809.—*R. ſyn.* 226.—The authority of Mr. Goodyer is cited alſo by Parkinſon, but who ſuppoſes him to have found the *P. officinalis.* ST.

ſea PULMONA'RIA *marit'ima.* Empalement but half as long as the tube of the bloſſom. Leaves egg-ſhaped. Stem branched; trailing.—

Lightf. 7.—*Dill. elth.* 65.—*Fl. dan.* 25.—*Pluk.* 172. 3, *cop. in H. ox.* xi. 28. *row* 2. 12.—*Park.* 766. 5.—*Sibbald.* 12. 4. *bad.* Mr. WOODWARD.

Leaves upper ſurface ſprinkled with white prominent dots. ST. —*Bloſs.* purple.

Sea Bugloſs.

On ſandy ſhores. P. July.

197. SYM'PHYTUM. Comfrey.

EMPAL. *Cup* with 5 diviſions and 5 corners; upright; ſharp; permanent.

BLOSS. 1 petal; bell-ſhaped. *Tube* very ſhort. *Border* tubular; diſtended; thicker than the tube; edge with 5 blunt reflected teeth. *Mouth of the Tube* furniſhed with 5 awl-ſhaped valves, ſhorter than the border, approaching ſo as to form a cone.

CHIVES. *Threads* 5; awl-ſhaped; ſtanding alternately with the valves in the mouth of the tube. *Tips* upright; ſharp; covered.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped, as long as the bloſſom. *Summit* ſimple.

S. VESS. None. The *Cup* grows larger and wider.

SEEDS. 4; bulging, tapering; approaching at the points.

ESS. CHAR. *Bloſs. the border betwixt tubular and bulging; the mouth cloſed with awl-ſhaped rays.*

SYM'PHYTUM *officina'le*. Leaves egg-ſpear-ſhaped, running along the ſtem.— *common*

Ludw. 80, *but from the ink having taken only the edge of the ſtalk has very much of the delicate appearance of S. tuberoſum.*—*Curt.* iv. 28.—*Fl. dan.* 664.—*Blackw.* 252.—*Matth.* 961, *cop. in Dod.* 134. 1, *repr. in Lob. obſ.* 315. 1, *Ger. em.* 806. 1, *and cop. in Park.* 523. 1.—*Ger.* 660. 1 *and* 2.—*H. ox.* xi. 29. *row.* 1. 1.—*Pet.* 29. 5.—*Fuchſ.* 695, *cop. in Trag.* 240, *and J. B.* iii. 593.

Root nearly ſpindle-ſhaped, ſingle, or generally ſeveral, a foot long, as thick as one's finger, round, not knotty, as in the *S. tuberoſum*. *Upper leaves* ſometimes oppoſite. Begins to flower in June, continuing the greater part of the ſummer. Road ſides, where the rubbiſh of gardens or ploughed fields has been laid, and the adjoining paſtures. JACQ.—*Bloſs. valves of the mouth* not toothed at the baſe. SCOP.—But in my ſpecimens they are generally toothed down to the baſe. ST.—Bloſſoms yellowiſh white.

β. Bloſſoms purple. LINN.—Or pink colour. St. *purple*

Empal. corners not very evident. *Bloſs. tube* as long as the empalement; egg-ſhaped above. *Valves* ſpear-ſhaped, flat, covering the tips; edge ſtudded with ſmall ſhining glands. WITH.

Banks of rivers and wet ditches. P. May.

The particles of the duſt appear in the microſcope like two globules united together. The leaves give a grateful flavour to cakes

and panada, and the young ſtems and leaves are excellent when boiled. The roots are glutinous and mucilaginous, and a decoction of them is uſed by the dyers to extract the colouring matter of gum lac.

Cows and Sheep eat it. Horſes, Goats, and Swine refuſe it. LINN.—A Horſe eat it. ST.

tuberous rooted

SYM'PHYTUM *tuberoſum*. Leaves running half way down; the uppermoſt oppoſite.—

Jacq. fl. 225.—*Obſ.* 63.—*Cluſ.* ii. 166. 2, *repr. in Ger. em.* 806. 3, *and cop. in H. ox.* xi. 29. *row* 1. 3.—*J. B.* iii. 594.—*(Cluſ. ib.* 1, *repr. in Dod.* 134. 2, *Lob. obſ.* 315. 2, *and cop. in Park.* 523. 3, *and H. ox. ib.* 2, *ſeems to me to reſemble more Hyoſcyamus Scopolia than a Symphytum.)*

Poſſibly a variety of the *S. officinale*. *Root* white, and not black on the outſide as that of the preceding. LINN.—*Root* tuberous, oblong, branched or ſimple, with ſlender lateral fibres. *Leaves* not ſo rough with hair; edges often running down almoſt as far as in the *S. officinalis; upper* ſometimes alternate. *Habit* more delicate; not ſo tall; all the parts in leſs profuſion. *Bloſs.* yelloviſh white. Begins to bloſſom in May, and out of flower by the end of June.—Shady woods and brakes. JACQ.—Head of the *root* tuberous. *Bloſs.* paliſh yellow; *valves of the mouth* finely toothed throughout. SCOP.—But ſo are thoſe of the *S. officinale*. ST.

200. BORA'GO. Borage.

EMPAL. *Cup* with 5 diviſions; permanent.

BLOSS. 1 petal; wheel-ſhaped; as long as the empalement. *Tube* ſhorter than the cup. *Border* with 5 diviſions; wheel-ſhaped; flat. *Mouth* crowned with 5 prominencies, which are blunt and notched at the end.

CHIVES. *Threads* 5; awl-ſhaped; approaching. *Tips* oblong; approaching; fixed to the inner ſide, and about the middle of the thread.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; longer than the chives. *Summit* ſimple.

S. VESS. None. The Cup grows larger and bladder-ſhaped.

SEEDS. 4; roundiſh; wrinkled; keeled outwardly towards the point; globular at the baſe: lying lengthways in a hollow of the receptacle.

ESS. CHAR. *Bloſs. wheel-ſhaped; mouth cloſed with rays.*

BORA'GO

BORA'GO *officina'lis*. All the leaves alternate. Cups *common* expanding.—

Ludw. 3.—*Fuchſ.* 142, *cop. in Dod.* 627. 1, *which repr. in Ger. em.* 797. 2; *and cop. again in J. B.* iii. 574, *which repr. at* 588. 1.—*Blackw.* 36.—*Matth.* 1186.—*Trag.* 237.—*Ger.* 653. 2 *and* 1.—*H. ox.* xi. 26. 1, *on the left.*—*Lob. obſ.* 309. 2, *repr. in Ger. em.* 797. 1.

Fruit-ſtalks terminating; ſupporting ſeveral flowers. Came originally from Aleppo; but now found in many parts of Europe. Bloſs. blue, white, or fleſh-coloured. LINN.—Whole *plant* rough with numerous white prickly hairs. *Bloſs. ſegments* ſpear-ſhaped; the *prominencies*, one riſing from the baſe of each ſegment, brownish, half egg-ſhaped. *Threads*, the portion above the inſertion of the tips cylindrical, dark blue, that below the inſertion thick, brown and glandular. *Tips* black. *Shaft* rather ſhorter than the chives. *Leaves* egg-ſhaped, embracing the ſtem. WITH.

Walls and amongſt rubbiſh. P. June.—Aug.

By the experiments of Mr. Marggraff, *Mem. de Berlin.* 1747. p. 72, it appears that the juice affords a true nitre.—It is now ſeldom uſed inwardly but as an ingredient in cool tankards for ſummer drinking, though the young and tender leaves are good in ſallads, or as a pot-herb.—It affords nouriſhment to the *Phalæna Gamma*. LINN.—A Horſe eat it. ST.

201. ASPERU'GO. Catchweed.

EMPAL. *Cup* of 1 leaf; permanent; with 5 upright, unequal ſegments.

BLOSS. 1 petal; funnel-ſhaped. *Tube* cylindrical; very ſhort. *Border* with 5 ſhallow clefts; blunt; ſmall. *Mouth* cloſed by 5 convex, projecting, approaching valves.

CHIVES. *Threads* 5, very ſhort; fixed in the mouth of the tube. *Tips* rather oblong; covered.

POINT. *Seed-buds* 4, compreſſed. *Shaft* thread-ſhaped; ſhort. *Summit* blunt.

S. VESS. None. *The* Cup very large; upright; compreſſed; cloſes upon and contains the ſeeds.

SEEDS. 4; oblong; compreſſed; in diſtant pairs.

ESS. CHAR. *Empal. of the fruit compreſſed; its ſides flat, parallel, indented.* (But in A. œgypt. the empal. of the fruit is bulging. ST.)

trailing ASPERU'GO *procum'bens*. Empalement of the fruit compreſſed.—

Fl. dan. 552.—*H. ox.* xi. 26. 13.—*Ger.* 963.—*Dod.* 356, *repr. in Ger. em.* 1122. 2.—*Lob. obſ.* 466. 2.—*Garid.* 9.—*J. B.* iii. 600. 2, *repr. in* 601. 2.—*(590. 1, a different plant.)*

Bloſs. very ſmall, deep blue. HALL. Mr. WOODW.—*Leaves* moſtly by threes, all pointing upwards. Mr. WOODWARD.—*Stem* angular, ſides unequal; angles beſet with ſtrong hooked prickles pointing backwards. *Leaves* ſpear-oblong, beſet with hairs pointing towards the end; from 1 to 4 to a ſet of flowers, from the ſame ſide of the ſtem with the flowers. *Empal. of the fruit* aſſumes an appearance very different from that of the flower, as if compoſed of 2 diſtinct valves, though in reality of 1 leaf; *teeth* tapering to a point, the middlemoſt in one of the valves longer than the other teeth, but in the other valve ſhorter, and cloven at the end. *Bloſs.* ſcarcely a line broad. *Fruit* on ſhort fruit-ſtalks, bowed down in a direction oppoſite to that of the leaves. ST.

Great Gooſe-graſs. German Madwort.

In roads and amongſt rubbiſh. A. April, May.

Horſes, Goats, Sheep, and Swine eat it. Cows are not fond of it.

202. LYCOP'SIS. Bugloſs.

EMPAL. *Cup* with 5 diviſions; permanent. *Segments* oblong; ſharp; open.

BLOSS. 1 petal; funnel-ſhaped. *Tube* cylindrical; crooked. *Border* with 5 ſhallow clefts; blunt. *Mouth* cloſed by 5 prominent, convex, approaching valves.

CHIVES. *Threads* 5, very ſmall; fixed to the bend of the tube. *Tips* ſmall, covered by the valves.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; as long as the chives. *Summit* blunt; cloven.

S. VESS. None. The *Cup* very large and bladder-ſhaped incloſes the ſeed.

SEEDS. 4; rather long; covered by a dry hard wrinkled coat.

ESS. CHAR. *Tube of the bloſſom crooked.*

wild LYCOP'SIS *arven'ſis*. Leaves ſpear-ſhaped, rough with hair. Cups while in flower upright.

Fuchſ. 269, *cop. in Dod.* 628. 2, *which repr. in Ger. em.* 799. 3, *and cop. again in J. B.* iii. 581, *and H. ox.* xi. 26. 8.—*Riv. mon.*

mon. 7. 2, *briſtly hairs not repreſented.—Fl. dan.* 435, *leaves tapering to a point; the undulated toothed edge aud briſtly hairs not repreſented.—Blackw.* 234, *leaves rounded at the end, and with the deficiencies of Fl. dan.—Trag.* 234,* *as the Fl. dan.*

Whole *plant* rough with ſtrong hairs. LINN. ST.—*Hairs* bulbous at the root. HALL. ST.—Heads of the *ſummit* beſet with ſmall tubes in lines, the ends of which are expanded into a kind of border. Mr. HOLLEFEAR.—*Leaves* ſometimes nearly ſtrap-ſhaped, and ſometimes nearly egg-ſhaped; waved at the edge, and ſomewhat toothed. *Stems* thick, round. *Empal. ſegments* ſometimes ſpear-ſhaped. *Bloſs.* ſky blue. WITH. ST.—*Stem* either ſingle, or branching from the bottom. *Leaves* waved, ſometimes oblong, and the upper ſometimes egg-ſhaped; teeth terminated by briſtly hairs. *Empal.* upright alſo when the ſeeds are ripe. ST.

Corn fields and road ſides. [Sometimes on dunghills, when the leaves are often 1½ inch broad. ST.] A. June.—Sept.

Cows, Horſes, Sheep, and Goats eat it. Swine refuſe it.

203. EC'HIUM. Vipergraſs.

EMPAL. *Cup* with 5 diviſions; upright; permanent. *Segments* awl-ſhaped; upright.

BLOSS. 1 petal; bell-ſhaped. *Tube* very ſhort. *Border* gradually widening; with 5 clefts, blunt; upright. *Segments* generally unequal; the 2 *upper* being the longeſt; the *lower* ſmaller; ſharp; reflected. *Mouth* open.

CHIVES. *Threads* 5; as long as the bloſſom; awl-ſhaped; declining; unequal. *Tips* oblong; fixed ſideways.

POINT. *Seed-buds* 4. *Shaft* thread-ſhaped; as long as the chives. *Summit* blunt; cloven.

S. VESS. None. The cup becoming more rigid, contains the ſeeds.

SEEDS. 4; roundiſh; obliquely tapering.

ESS. CHAR. *Bloſs. irregular; the mouth open.*

OBS. In the *E. italicum* the bloſſom is nearly regular.

EC'HIUM *ital'icum.* Stem upright, hairy. Spikes hairy. Segments of the Bloſſoms nearly equal. Chives extremely long.— *wall*

* Referred by C. B. to his *Bugloſs. ſylv. min. alt. and aſperius C. B. pin.* 256, and as Fl. dan. 435 may prove to be at leaſt a diſtinct variety. ST.

Dod. 631. 2, *repr. in Lob. obſ.* 312. 1, *Ger. em.* 802. 1; *and cop. in H. ox.* xi. 27. 6, *and Park.* 519.—*J. B.* iii. 588. 1, *(the ſeparate flowers do not belong to it,—J. B.* iii. 584. 2, *is referred to by Ray, but it ſeems the α of Linn. who regards our plant as a variety of the true italicum.)*

Bloſs. invariably white. HALL.

Sandy meadows and paſtures. On the ſandy ground near St. Hilary, Jerſey. P. HUDS. A. RAY.

common EC'HIUM *vulga're.* Stem rough with hairy tubercles. Stem-leaves ſpear-ſhaped, rough with hair. Flowers in lateral ſpikes.—

Fl. dan. 445.—*Riv. mon.* 7. 1, *both beginning to flower.—Matth.* 996, *cop. in Dod.* 631. 1, *repr. in Lob. obſ.* 312. 2, *Ger. em.* 802. 2, *and cop. in Park.* 414. 1, *in full flower; and H. ox.* xi. 27, *row* 3. 1.—*Matth.* 892, *root and root-leaves.—(J. B.* iii. 586, *ſeems more to reſemble the E. italicum.)*

Chives extending beyond the bloſs. HALL. Mr. WOODWARD. ST.—*Stem* frequently, and ſometimes the *leaves* beautifully ſpotted with red. Mr. WOODWARD.—*Stem*, the hairs riſing from gloſſy, purpliſh black tubercles. *Bloſs.* upper and lateral clefts rounded, the loweſt ſomewhat pointed. *Threads* juſt equal to, or about a line longer than the upper ſegment of the bloſſom. ST.—*Root-leaves* near 2 feet long, ſtrap-ſhaped. *Flowers* numerous, in ſpikes; thoſe of each ſpike pointing one way, and cloſely wedged together. *Empal.* fringed with white hairs. *Bloſs.* before it expands of a fine red, afterwards of a bright blue; outſide beſet with ſhort white hairs, and marked with 5 riſing ribs, extending from the middle of each ſegment down to the baſe, a little diſtended on the upper ſide; *border*, clefts ſhallow; *ſegments* blunt, equal, but the 2 upper longer. *Threads* much longer than the bloſs. of a fine ſhining red. *Tips* grey. *Shaft* very hairy, white, or faintly tinged with red. *Seed-buds* embedded in a fleſhy receptacle. A beautiful ſhowy plant, and meriting a place in our gardens. WITH.

E. caule ſimpl. erecto, fol. lanceolato-linearibus hiſpidis, &c. ſtaminibus corolla longioribus. MILL. *dict. ed.* 6, to which Mr. Hudſon in his 1ſt edit. gave the name of *E. anglicum*, but in his 2d it ſtands as a var. of *E. vulg.*—I believe them to be one and the ſame plant. ST. Mr. WOODWARD.

On the ſides of roads and paths, walls and barren corn fields. RAY. ST.—*Viper's Bugloſs.*

Cows and Sheep are not fond of it. Horſes and Goats refuſe it.—Bees are fond of the flowers. LINN.—But get their wings torn by its ſtrong hairs. SCOP.

α. HUDS.

α. HUDS.—Chives riſing even with the bloſſom. MILL. and HUDS.

Blackw. 299. *(Mr. Hudſ. refers to ſeveral of the figures quoted above, but in all thoſe the chives are longer than the bloſſom.)*

Corn fields and road ſides. HUDS.

P. HUDS.—A. RAY.—B. LINN. and LIGHTF.—June.—Aug.

β. E. vulgare anglicum? HUDS. Chives longer than the bloſſom. MILL. and HUDS.—There is a variety in which the branches are more ſtraddling, and the chives nearly twice as long as the bloſs.

Perhaps the *E. anglicum of Huds. ed.* i. LIGHTF.

Rich meadows and paſtures. HUDS. *ed.* ii.—Barren corn fields paſtures, and road ſides, common. *edit.* 1.—About Mellroſs Abbey. LIGHTF.—P. HUDS.—A. Ray.—Aug.

EC'HIUM *viola'ceum*. Bloſs. and chives of the ſame length. Tube of the bloſs. ſhorter than the empalement. LINN.? ST. Mr. WOODWARD. *ſhort-chived*

Cluſ. ii. 164. 2, *repr. in Ger. em.* 802. 4, *and cop. in J. B.* iii. 589. 1, *and H. ox.* xi. 27. 2, *referred to by Linn. but the chives are longer than the bloſs. and Cluſ. deſcribes the bloſs. as red.*

Very much reſembling the *E. vulgare*, but differs as follows: *Bloſs.* violet. *Stems* more ſpreading. *Chives* not longer than the bloſſom, purple. *Shaft* white, hairy. *Bloſs. tube* nearly as long as the empalement. *Habit* diſtinct. LINN.—*Colour* a more pleaſing green. *Hairs* not riſing from tubercles. *Bloſs.* not red on the firſt day of its appearance, as in *E. vulg.* but uniformly of a pale blue. MURR. *prod.* 143.—*Spike* ſhorter and not ſo compact. *Hairs* not ſo ſtiff. MURR. ST.—*Lower-leaves* ſpear-ſhaped, blunt; *upper* oblong-heart-ſhaped, pointed. *Flowers* pointing one way. *Bunches* (or rather *Spikes*) rolled back. *Chives*, the 5th ſhorter. *Threads* fleſh-coloured. RETZ. *obſ.* ii. ST.——Whole *plant* ſmaller, more ſlender, weak, and hairy than *E. vulg.* but the hairs ſofter, ſome of them riſing from tubercles. The *tubercles* hardly, if at all, diſcernible on the *leaves*; though they are on the *ſtem*, where they are intermixed with ſhort hairs not riſing from tubercles. *Empal* very unequal. *Bloſs.* unequal, ſmaller than thoſe of *E. vulg.* deep blue. *Chives* always within or juſt even with the bloſſom. Mr. WOODW. ST.—*Stem* a foot high, branching at the top and bottom. *Flower-leaves*, the lower ones heart-ſpear-ſhaped, longer than the flowers. *Empal.* ſegments broader than in *E. vulg.* *Bloſs.* half as long again as the empal. at the baſe of the 2 upper ſegments beſet both within and without with ſcattered hairs. *Chives* even with the 3 lower ſegments of the bloſſom. ST.

Echium

Echium alterum, ſive, Lycopſis anglica. R. ſyn. 228, which "differs from *E. vulg.* chiefly in the ſmallneſs of the flower." Dr. RICHARDSON. *ib.*—*E. caule ſimpl. erecto, fol. caulin. &c. ſtaminibus corollam æquantibus.* MILL. *dict. ed.* 6.?

Banks, and corn fields. Near Norwich, Mr. WOODWARD.—Cultivated in Mr. Ballard's garden under the title of *E. italicum*, compared with a ſpecimen ſince ſent me by Mr. Woodward. ST.

210. PRI'MULA. Primroſe.

EMPAL. *Fence* ſmall; of many leaves; including ſeveral flowers. *Cup* 1 leaf; tubular; ſharp; upright; permanent; with 5 angles, and 5 teeth.

BLOSS. 1 petal. *Tube* cylindrical; as long as the cup; terminated by a ſhort hemiſpherical neck. *Border* expanding, with 5 ſhallow clefts. *Segments* inverſely heart-ſhaped; notched at the end; blunt. *Mouth* open.

CHIVES. *Threads* 5; very ſhort; within the neck of the bloſſom. *Tips* upright; approaching; tapering; within the tube.

POINT. *Seed-bud* globular. *Shaft* thread-ſhaped; as long as the cup. *Summit* globular.

S. VESS. *Capſule* cylindrical; nearly as long as the cup, which covers it; of 1 cell; opening at the top with 10 teeth.

SEEDS. Numerous; roundiſh. *Receptacle* oblong; egg-ſhaped; looſe.

ESS. CHAR. *A fence to the rundle. Tube of the bloſs. cylindrical; mouth open.*

ſpring PRI'MULA *veris.* Leaves toothed; wrinkled. Leaves notched. Empalements woolly, inflated. RETZ. *obſ.* ii. *n.* 13.

cowſlip *α. officinalis.*—*P. officinalis*, which ſee.

oxlip *β. elatior.*—*P. elatior*, which ſee.

common *γ. acaulis.*—*P. acaulis*, which ſee.

Theſe varieties, though conſtant, I do not diſtinguiſh as ſpecies any more than a Black from a European. LINN.—The latter caſe, however, admits of proof, the former has only conjecture in ſupport of it. The oppoſite opinion is ſupported by Haller, Scopoli, and Hudſon. ST.—But the accurate Dr. Martin, in his *Cat. Cant.* p. 30, ſays, experience hath taught him to adopt the opinion of Linnæus;

Linnæus; though at the ſame time, with that candour which ever diſtinguiſhes real merit, he quotes a different opinion from another author. WITH.

PRI'MULA *officina'lis*. SCOP.—Leaves toothed, wrinkled. Border of the bloſs. concave. LINN.—Several flowers on a ſtalk, all nodding. HUDS.—Diameter of the bloſs. not equal to the length of the cup. SCOP. ST. *Cowſlip*

Ludw. 43.—*Fl. dan.* 433.—*Blackw.* 226.—*Walc.*—*Fuchſ.* 850.—*Cluſ.* i. 301. 1, *repr. in Lob. obſ.* 305. 1, *and Ger. em.* 780. 1.—*Trag.* 201.—*Ger.* 635. 2.—*Matth.* 1149, *very ill done.*—*(Col. phytob.* 6. 2, *ſeems rather P. elatior.)*

Bloſs. ſweet-ſcented, full yellow, with a blotch of orange at the baſe of each ſegment. The whole *plant* with a delicate hoarineſs upon it. HALL. ST. WITH.—*Leaves* ſometimes heart-egg-ſhaped, with a portion of the leaf running down the leaf-ſtalk, with a bluiſh mealineſs, ſhorter than the ſtalk. *Little fruit-ſtalks* ſhorter than the flowers. ST.—*Bloſs.* contracted about the middle of the tube, where the chives are inſerted. WITH.

Primula veris officinalis. LINN.—*Veris.* HUDS.

Pagils. Paigles. Cowſlips.

Meadows and paſtures. [Chiefly, if not always, in a clayey ſoil. Half way up Arthur's Seat, Edinburgh, but the ſoil a ferrugineous ſtone decompoſed. ST.] P. Apr. May.

The bloſſoms are uſed for making cowſlip wine. The leaves ſometimes eaten as a pot-herb, and in ſallads. The root has a fine ſcent, like aniſe.—Silk-worms are fond of the leaves and flowers. *Tranſ. of Soc. of Arts*, ii. *p.* 157.

PRI'MULA *ela'tior*. (*Germ. ſynon.* ST.) Leaves toothed, wrinkled. Border of the bloſſom flat. LINN.—Several flowers on a ſtalk, the outer ones nodding. HALL.—Diameter of the bloſſom exceeding the length of the cup. ST. *Oxlip*

Fl. dan. 434, *right hand ſtalk the beſt.*—*Fuchſ.* 851, *cop. in J. B.* iii. 496. 2.—*Cluſ.* 301. 2, *repr. in Dod.* 147. 1, *Lob. obſ.* 305. 3, *Ger. em.* 780. 2.—*Ger.* 635. 1.—*Col. phytob.* 6. 2.—*Matth.* 1150, *very ill done.*—*(Ger.* 635. 2, *is P. officinalis.)*

Leaves like thoſe of the *P. acaulis*. *Bloſs.* pale yellow, of a deeper yellow at the baſe of the border. HALL. ST.—*Leaves* nearly as long as the ſtalk. *Pedicles* generally longer than the flowers. *Flowers* ſcentleſs. The *Polyanthus* of the floriſts appears to me a variety of this ſpecies. *See R. ſyn. ed.* i. *p.* 159. ST.—In every reſpect reſembling the *P. offic.* but the parts proportionably larger.—*Bloſs.* more expanded;

expanded; diameter of the border more than the length of the tube. WITH.

Primula. HALL. *n.* 609.—*Primula veris elatior.* LINN.—*Vulgaris* β. HUDS. *ed.* II.—*Veris* β. *ed.* I.—*Oxlips. Great Cowſlips.*

Woods, hedges, and ſometimes paſtures. [Clayey paſtures, Suffolk. Mr. WOODWARD.—High paſtures, near Little Wenlock, Shropſhire. WITH.] P. Apr. May.

common PRI'MULA *acau'lis.* (*Germ. ſynon.* ST.) Leaves toothed, wrinkled. No common ſtalk. LINN.——One flower on a ſtalk. HALL.—Border of the bloſſom flat. HUDS.—The diameter of the bloſs. exceeding the length of the cup. SCOP. ST.

Sheldr. 11.—*Fl. dan.* 194.—*Walc.*—*Blackw.* 52, *bloſſoms by far too ſmall.*—*Cluſ.* i. 302. 1, *repr. in Dod.* 147. 3, *Lob. obſ.* 305. 4, *Ger. em.* 781. 5, *and cop. by Park.* 535. 1, *and H. ox.* v. 24. 8 *and* 9.—*Park. par.* 243. 1.—*Col. phytob.* 6. 1.—(*J. B.* iii. 497, *is P. officinalis.*)

It has a *common ſtalk*, but it is exceedingly ſhort, and is concealed beneath the ſurface of the ground, ſo that the ſtalks which ſupport the flowers are only elongated little fruit-ſtalks. LINN. ST.—*Leaves* ſomewhat ſhorter than the fruit-ſtalks, ſmooth above, (except along the mid-rib. ST.)—Hairy underneath. HALL. ST. —*Bloſs.* of a pale whitiſh ſtraw colour, with a yellow ſtar-like blotch of 5 rays ſurrounding the mouth of the tube. There is found in old gardens a variety with a dull purpliſh roſe-coloured bloſſom. ST.—*Fruit-ſtalk* and *empal.* woolly. WITH.

Primula veris acaulis. LINN.—*Primula ſylveſtris.* SCOP.—*Primula vulgaris.* HUDS.—*Primroſe.*

Woods, hedges, thickets, and heaths, [particularly in a clayey ſoil. WITH.] P. Apr. May.

Gerard reports that a dram and a half of the dried roots taken up in autumn, operates as a ſtrong but ſafe emetic.

Sheep and Goats eat it. Cows are not fond of it. Horſes and Swine refuſe it. LINN.—Silk-worms may be fed with the leaves. *Tranſ. of Soc. of Arts*, ii. *p.* 157.

Birds-eye PRI'MULA *farino'ſa.* Leaves ſcolloped, ſmooth. Border of the bloſſom flat.—

Fl. dan. 125.—*Walc.*—*Gmel.* iv. 44. 2 *and* 3.—*Ger.* 639. 2 *and* 1.—*Cluſ.* i. 300. 1, *repr. in Lob. obſ.* 307. 2, *and Ger. em.* 783. 1, *and cop. in H. ox.* v. 24. *row* 2. 5 *and* 6.—*Cluſ.* 300. 2, *repr. in Lob. obſ.* 307. 1, *Ger. em.* 783. 2, *and cop. in J. B.* iii.

B. iii. 498. 3. *ib.* 3. 6.—*H. ox. ib.* 7.—*J. B. ib.* 2.—*Swert.* ii. 4. 9.—*Park. par.* 243. 10.

Fruit-ſtalks and *empal.* as if duſted with flour. LINN.——*Leaves*, veins green; upper ſurface green. *Stalk* mealy, after flowering loſing its mealineſs, and lengthening. *Fruit-ſtalks* expanding, after flowering upright, but approaching. Mr. WOODW.—*Leaves* mealy underneath. *Empal.* as long as the tube of the bloſs. *Bloſs.* purpliſh blue, with 5 yellow glands at the diviſions of the border. HALL. ST.—— Or rather bordered by an elevated fleſhy ring, marked with 5 nicks, giving the appearance of its being compoſed of as many glands. This has led Haller to conſider it as an *Aretia*, probably not recollecting that in *P. officinalis* there is a ſimilar border round the mouth of the tube. ST.

Birdſ-eye. Birdſ-eyn.

Marſhes and bogs on mountains in the north. RAY. Mr. WOODWARD.—[Meadows near Kendall in the richeſt profuſion. ST.] P. May.

Horſes, Sheep, and Goats eat it. Cows refuſe it. The flowers are beautiful, but they indicate a barren ſoil. LINN.—It is, perhaps, the moſt beautiful of our Engliſh plants, or yields only to the *Hottonia*. ST.—The *Phalæna pronuba* lives upon the different ſpecies.

215. MENYAN'THES. Buckbean.

EMPAL. *Cup* 1 leaf, with 5 upright diviſions; permanent.

BLOSS. 1 petal; funnel-ſhaped. *Tube* ſhort, ſomewhat cylindrical at bottom, but funnel-ſhaped upwards. *Border* cloven more than half way down into 5 *ſegments*. *Segments* blunt; reflected; expanding; remarkably hairy.

CHIVES. *Threads* 5; awl-ſhaped; ſhort. *Tips* ſharp; upright; cloven at the baſe.

POINT. *Seed-bud* conical. *Shaft* cylindrical; nearly as long as the bloſſom. *Summit* cloven; compreſſed.

S. VESS. *Capſule* egg-ſhaped; of 1 cell: bound round by the cup.

SEEDS. Many; egg-ſhaped; minute.

ESS. CHAR. *Bloſs. hairy. Summit cloven. Capſ. of* 1 *cell.*

OBS. The 1ſt ſpecies has the ſegments of the petals fringed at the edges; but the upper ſurface is not hairy.

MEN-

fringed MENYAN'THES *nymphoi'des*. Leaves heart-ſhaped, very entire. Bloſſoms fringed.—

Fl. dan. 339.—*Tourn.* 67, *flowers, &c.*—*J. B.* iii. 772. 1, *cop. in Pet.* 71. 4.

Rundle ſimple, ſitting, from the ſide of a leaf-ſtalk. LINN.—*Leaves* circular-heart-ſhaped, ſerpentine at the edge. *Empal. ſegments* ſpear-ſhaped. *Bloſs.* twice as large as the empal. *ſegments* with ſpear-ſhaped impreſſions. *Habit* that of *Nymphœa*. WIGG. ST.—*Bloſs. ſegments* inverſely egg-ſhaped, the middle of each veined, and the part ſo veined bordered by 2 ſtronger veins, which, converging towards each end, give the appearance of a narrow ſpear-ſhaped petal being laid upon it; finely toothed at the edge, by no means according with Linnæus's character of "bloſs. hairy;" *teeth* tapering. ST.—Allied to *Claytonia*, totally diſtinct from *Menyanthes trifoliata*, not belonging even to the ſame natural order. WIGG.—The ſtructure of the bloſs. as above deſcribed, induces me to accede to the opinion of Tourn. Gmelin, and Wiggers. ST.

Waldſchmidia nymphoides. WIGGERS. but he gives us no generic character, and offers us no reaſon for not having adopted Gmelin's name of *Limnanthemum*. ST.—*Bloſſoms* yellow. *Leaves* ſometimes ſpotted.—*Fringed Water Lily*.

Large ditches and ſlow ſtreams. P. June. July

[Lady Clifford's botanical garden at K. Weſton, near Briſtol.]

Trefoil MENYAN'THES *trifolia'ta*. Leaves growing by threes.—

Curt. iv. 40.—*Fl. dan.* 541.—*Blackw.* 474.—*Ger.* 1024. 1 *and* 2.—*Dod.* 580, *repr. in Lob. obſ.* 496. 2, *Ger. em.* 1194, *and cop. in Park.* 1212, *in fruit.*—*H. ox.* xv. 2. *row* 2, *1ſt figure on the left hand.*

Fruit-ſtalk (or rather *Bunch*) oppoſite to the leaves, but below the ſummer leaves. *Flowers* 3, from the ſame part of the fruit-ſtalk as in *Hottonia*. *Bloſs.* hairy; *ſegments* ſtand diſtinct, not lapping over each other. LINN.——Roſe-coloured without, white within. CURT.

Marſh Trefoil. Water Trefoil. Marſh Cleaver.

Ponds and pits, frequent. P. June. July.

An infuſion of the leaves is extremely bitter, and is preſcribed in Rheumatiſms and Dropſies. A dram of them in powder purges and vomits. It is ſometimes given to deſtroy worms. In a ſcarcity of hops this plant is uſed in the North of Europe to bitter the ale: two ounces ſupply the place of a pound of hops. Some people ſmoke the dried leaves. The powdered roots are ſometimes uſed in Lapland inſtead of bread, but they are unpalatable.

Some

Some people ſay that ſheep will eat it, and that it cures them of the rot; but from the Upſal experiments it appears, that though Goats eat it, Sheep ſometimes will, and ſometimes will not. Cows, Horſes, and Swine refuſe it.

216. HOTTO'NIA. Featherfoil.

EMPAL. *Cup* of 1 leaf, with 5 diviſions. *Segments* ſtrap-ſhaped; upright; open.

BLOSS. 1 petal; ſalver-ſhaped. *Tube* as long as the empal. *Border* with 5 clefts; flat. *Segments* oblong, egg-ſhaped; notched at the end.

CHIVES. *Threads* 5; awl-ſhaped; ſhort; upright; ſtanding upon the tube, and oppoſite to the ſegments of the bloſſom. *Tips* oblong.

POINT. *Seed-bud* globular, tapering. *Shaft* thread-ſhaped; ſhort. *Summit* globular.

S. VESS. *Capſule* globular, tapering; 1 cell; ſtanding upon the empalement.

SEEDS. Many, roundiſh. *Receptacle* globular; large.

ESS. CHAR. *Bloſs. ſalver-ſhaped. Chives fixed on the tube of the bloſſom. Capſule 1-celled.*

HOTTO'NIA *paluſ'tris*. Fruit-ſtalks in whorls conſiſting of ſeveral flowers.— *water*

Curt. i. 4.—*Fl. dan.* 487. β.—*Matth.* 1168.—*Dod.* 584. 2, *repr. in Lob. obſ.* 460. 2, *Ger. em.* 826. 1, *and cop. in Park.* 1256. 4. —*Ger.* 678. 1.—*Dod.* 584. 3, *repr. in Ger. em.* 826. 2. β.—*Giſek.* 43.

Foliage under water as in *Myriophyllum*. Spike of the flowers alone riſing above. LINN.—Some *flowers* have 6 chives; and then the cup and the bloſſom are divided into 6 ſegments. WITH.—*Leaves* winged. *Bloſſoms* white or tinged with pale purple.

Water Violet. Water Arrow. Water Gilliflower.

Ponds and ditches. [Several places near Stratford, Eſſex. Mr. JONES.—Ditches, Suff. frequent. Mr. WOODWARD.—In a pit by the foot road from Wellington, in Shropſhire, to Leegomery. WITH.—Between Ormſkirk and Liverpool. ST.]

Cows eat it. Swine refuſe it. P. July. Aug.

2. See Ger. em. p. 826. *n.* 2, figures above marked β. *ſmaller leaved*

219. LYSI-

219. LYSIMA'CHIA. Looſeſtrife.

EMPAL. *Cup* with 5 diviſions; ſharp; upright; permanent.
BLOSS. 1 petal; wheel-ſhaped. *Tube* none. *Border* with 5 diviſions; flat. *Segments* oblong-egg-ſhaped.
CHIVES. *Threads* 5; awl-ſhaped. *Tips* tapering.
POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; as long as the chives. *Summit* blunt.
S. VESS. *Capſule* globular; 1 cell; 10 valves.
SEEDS. Several, angular. *Receptacle* very large; globular; dotted.
ESS. CHAR. *Bloſs. wheel-ſhaped. Capſule globular; ſharp-pointed; valves* 10.

* *Fruit-ſtalks with ſeveral flowers.*

yellow LYSIMA'CHIA *vulga'ris*. Panicled. Bunches terminating.—

Blackw. 278, *hairs too ſtrong.—Cluſ.* ii. 50. 2, *repr. in Dod.* 84, *Ger. em.* 474. 1, *and cop. in Park.* 544. 1, *and H. ox.* v. 10. 14. *—Matth.* 949.—*Fl. dan.* 689, *flowers well done, but habit bad.—Fuchſ.* 492, *imitated by Trag.* 183.—(*J. B.* ii. 903, *is a Cardamine.*)—*Ger. em.* 474. 2, *cop. in J. B.* ii. 904. 1, *ſeems to be the ſame plant.*

Leaves often in threes and fours. *Threads* united at the baſe, unequal in height. LEERS.—One of the *chives* ſhorter. *Bloſs.* and *threads* ſprinkled with glands on fruit-ſtalks. SCOP.—*Stem* ſcored, woolly. *Leaves* woolly underneath, ſlightly hairy above; thoſe of the branches oppoſite, nearly ſitting, ſpear-ſhaped, waved at the edge. *Flower-leaves* hairy at the edge and on the outſide, edged and tipt with red. *Empal.* edged with red and fringed; diviſions ſometimes 6. *Bloſs.* yellow, the inſide beſet with ſhining yellow globules; diviſions ſometimes 6. *Chives* unequal. *Threads* broad at the baſe and united ſo as to form a cylinder incloſing the ſeed-bud. *Tips* red at the edges. *Duſt* yellow. WITH.

Yellow Willowherb.

Banks of rivers and ſhady marſhes. [By the ſide of the Avon, at Perſhore. Mr. BALLARD.] P. June. July.

The leaves give a yellow dye to wool.—Cows and Goats eat it. Sheep are not fond of it. Horſes and Swine refuſe it.

β. Huds. Leaves as ſhort again. Flowers not ſo much ſcattered. RAY.

LYSIMA'CHIA *thyrſiflo'ra*. Bunches lateral, on *tufted* fruit-ſtalks.—

Fl. dan. 517.—*Cluſ.* 53. 1, *repr. in Ger. em.* 475. 3.—*Baier. epiſt. at p.* 91 *and* 162, *f.* 1.—*Cluſ.* 53. 2, *cop. in. Park.* 544. 3, *and J. B.* ii. 904. 2.—*Dod.* 607. 1.

Lateral bunches in an upright plant is a peculiar circumſtance. *Bloſs.* divided almoſt to the baſe, with very ſhort teeth interpoſed; *ſegments* marked at the end with tawny dots. LINN.—*Stem* always ſimple. WEBER.

[Marſhes and banks of rivers, near King's Langley, Hertfordſhire. In a bog near Severus's Hills, near Yorkſh. Dr. WHITE.—But the bog having been ſince drained it is no longer to be found there, as the Doctor informs me. Dr. SMITH.]—Angleſea. P. June.

Goats eat it. Cows and Sheep are not fond of it. Horſes and Swine refuſe it.

** *Fruit-ſtalks with only* 1 *flower.*

LYSIMA'CHIA *nemo'rum*. Leaves egg-ſhaped. Flowers ſolitary. Stem trailing.— *Pimpernel*

Fl. dan. 174.—*Cluſ.* ii. 182. 2, *repr. in Lob. obſ.* 248. 2, *Ger. em.* 618. 4; *and cop. in Park.* 553. 5, *and H. ox.* v. 26. *row* 2. 1 *and* 2.—*Ger.* 494. 3.—*(H. ox.* v. 26. *row* 2. 5, *is Anagall. arvenſ.)*

Bloſs. edge beſet with very ſhort glandular hairs. ST.—*Stem* cylindrical. *Leaf-ſtalks* ſhort, flat. *Fruit-ſtalks* ſtraight when in flower, afterwards bowed down. *Chives*, *ſhaft*, and *ſummit* yellow. *Bloſs. ſegments* very ſlightly ſcolloped. *Seeds* kidney-ſhaped. WITH.

Yellow Pimpernell of the Woods.

Moiſt ſhady places. P. May. June.

LYSIMA'CHIA *Nummula'ria*. Leaves ſomewhat heart-ſhaped. Flowers ſolitary. Stem creeping.— *Moneywort*

Ludw. 148.—*Curt.* iii. 25.—*Fl. dan.* 493.—*Blackw.* 542.—*Walc.*—*Trag.* 808.—*Fuchſ.* 401, *cop. in J. B.* iii. 371. 1.—*Ger.* 505. 2.—*Matth.* 1013, *cop. in Dod.* 600. 2, *which repr. in Lob. obſ.* 251. 1, *Ger. em.* 630. 1, *and cop. in Park.* 555. 1.—*Park.* 555. 1. *(6)*—*H. ox.* v. 26. *row* 1. 1, *Nummularia.*—*Ger.* 505. 1.

Bloſs. edge fringed with glands. *Threads* beſet with glands. *S. veſſ.* rarely comes to perfection, as often happens to thoſe plants which increaſe much while in flower, either by their roots or ſtalks. CURT.—To examine it at other ſeaſons, to diſcover whether it may not produce fruit, as the *violet* does, without coloured bloſſoms. ST.—*Stem* compreſſed, with 4 membranaceous edges.

Leaves ſometimes curled at the edge, egg-ſhaped, blunt. *Bloſs.* and *threads* covered with globular glands. *Tips* arrow-ſhaped.

WITH.

Moneywort. Herb Twopence.

Moiſt Meadows. P. June.

The plant is a little acrid, and ſomewhat aſtringent.

Cows and Sheep eat it. Goats are not fond of it. Horſes refuſe it.

220. ANAGAL'LIS. Pimpernel.

EMPAL. *Cup* with 5 diviſions; ſharp; permanent; *ſegments* keeled;

BLOSS. 1 *petal*; wheel-ſhaped. *Tube* none. *Border* with 5 diviſions; flat; *ſegments* roundiſh egg-ſhaped; connected by the claws.

CHIVES. *Threads* 5, upright, hairy towards the bottom; ſhorter than the bloſſom. *Tips* ſimple.

POINT. *Seed-bud* globular. *Shaft* thread-ſhaped; a little inclining. *Summit* knobbed.

S. VESS. *Capſule* globular; of 1 cell; cut round.

SEEDS. Several; angular. *Receptacle* very large; globular.

ESS. CHAR. *Bloſs. wheel-ſhaped. Capſule cut round.*

common ANAGAL'LIS *arvenſis*. Leaves undivided. Stem trailing.—

Bloſs. finely notched. LEERS. REICH.

red α. Bloſſoms red.

Curt. 1. 1.—*Fl. dan.* 88.—*Trag.* 388.—*Blackw.* 43.—*Fuchſ.* 18, *cop. in J. B.* iii. 369. 2.—*Dod.* 32. 1, *repr. in Lob. obſ.* 247. 2, *Ger. em.* 617. 1, *and cop. in Park.* 558. 1.—*Walc.*—*H. ox.* v. 26. *row* 2. 5.—*Matth.* 621, *cop. in Ger.* 494. 1.—*(H. ox. ib.* 1 *and* 2, *is Lyſimachia nemorum.)*

Bloſſoms open, about 8 in the morning; but cloſe in the afternoon. LINN.——*Leaves* dotted underneath. SCOP. ST.——Dots brown. *Threads*, hairs jointed. CURT. ST.—*Summit* ſtanding without the circle of the tips. *Petals*, notches tipped with glandular hairs. CURT.—*Bloſs.* ſcarlet. It is remarkable with what a ſparing hand nature has dealt out her richeſt and moſt glorious colour, for except this, and the poppies, I do not recollect any indigenous plant of a ſcarlet colour. Mr. DICKENSON.—*Stem* 4-cornered. *Leaves* ſitting, oppoſite; when magnified appear froſted over with very

very minute ſhining glands. *Fruit-ſtalks* from the boſom of the leaves; after flowering hanging down. *Empal.* ſegments ſpear-ſhaped, ſkinny at the edges. *Bloſs.* ſcarlet. *Threads* united at the baſe, purpliſh. *Tips* yellow. *Shaft* purpliſh. *Summit* green-iſh yellow. *Capſ.* marked with 5 lines as if it would open into 5 valves, whereas it ſeparates horizontally into 2 parts. WITH.

Male Pimpernel.—Corn fields and ſandy places. A. May.—Aug.

Cows and Goats eat it. Sheep refuſe it. Small birds are very fond of the ſeeds.

β. Leaves 4 at a joint. Bloſs. red. Rare. RAY. four-leaved

γ. Bloſs. white; purple in the centre. POLLICH.—In Cowley Field. RAY. whiteflower'd

δ. Bloſſom blue. RAY. WITH. blue flowered

Blackw. 274.—*Fuchſ.* 19, *cop. in J. B.* iii. 369. 1.—*Cluſ.* ii. 183. 1, *repr. in Dod.* 32. 2, *Lob. obſ.* 248. 1, *and Ger. em.* 617. 2. —*Matth.* 622.

Leaves mottled with dark purple underneath. WITH.

Female Pimpernel.—Between Stockwell and Camberwell. HUDS. —[Bredon Hill, in a corn field at the top of Overbury Wood, Worceſterſhire. NASH.]

ANAGAL'LIS *tenel'la.* Leaves egg-ſhaped, rather pointed. Stem creeping.— *bog*

Curt. iii. 32.—*H. ox.* v. 26. *row* 1. 2.—*Ger. em.* 630. 3; *cop. in Park.* 554. 2.—*J. B.* iii. 371. 2.

Fruit-ſtalks longer than the leaves. *Threads* woolly. *Capſ.* cut round. LINN.——*Bloſs.* pale red, with veins of a deeper colour. *Threads* white, very hairy; *hairs* white, jointed. CURT. ST.—— Necklace-like; reſembling thoſe of *Tradeſcantia virginica.* ST. July 75.—*Stems* reddiſh, ſending out roots at the joints. *Empal.* coloured. *Bloſs.* pale purple, each ſegment marked with 7 deeper coloured lines. *Tips* yellow. *Shaft* upright, ſtraight. *Summit* very ſmall. WITH.

Purple-flowered Moneywort.

Wet heaths, meadows, and turfy bogs.—[In Suffolk, frequent. Mr. WOODW.—Tittenſor Hills, and Cannock Heath, Staffordſh. ST.] P. July. Aug.

226. AZAL'EA. Roſebay.

EMPAL. *Cup* with 5 diviſions; ſharp; upright; ſmall; coloured; permanent.
BLOSS. 1 *petal*; bell-ſhaped; with 5 ſhallow cleſts. *Segments* with the edges bent inwards.
CHIVES. *Threads* 5; thread-ſhaped; growing on the receptacle; looſe. *Tips* ſimple.
POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; as long as the bloſſom; permanent. *Summit* blunt.
S. VESS. *Capſule* roundiſh; with 5 cells and 5 valves.
SEEDS. Many; roundiſh.
ESS. CHAR. *Bloſs. bell-ſhaped. Chives fixed to the receptacle. Capſule* 5-*celled.*

trailing AZAL'EA *procum'bens*. Branches ſpreading wide, and trailing.—

Linn. lapp. 6. 2.—*Cluſ.* i. 75. 3, *cop. in J. B.* i. *a* 527, *and improved in Jonſt.* 116. 8.—*Fl. dan.* 9.—*(Penn. tour in Scotl.* ii. 5, *I have not at hand.)*

Flowers bright red. LIGHTF.

Highland mountains, on dry barren ground, near their ſummit. Firſt diſcovered in Great Britain by Mr. Lightfoot. [Ben Lomond near the top. Found there firſt by the Rev. Mr. Stuart, of Luſs. Dr. SMITH.]

231. CONVOL'VULUS. Bindweed.

EMPAL. *Cup* with 5 diviſions; approaching; egg-ſhaped; blunt; ſmall; permanent.
BLOSS. 1 *petal*; bell-ſhaped; expanding; large; plaited; *Border* ſlightly marked with 5 or 10 notches.
CHIVES. *Threads* 5; awl-ſhaped; half the length of the bloſſom. *Tips* egg-ſhaped; compreſſed.
POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; as long as the chives. *Summits* 2; oblong, and ſomewhat broad.
S. VESS. *Capſule* incloſed by the cup; roundiſh; with 1, 2, or 3 valves.
SEEDS. 2; roundiſh.
ESS. CHAR. *Bloſs. bell-ſhaped, plaited. Summits* 2. *Capſ.* 2-*celled, each cell* 2-*ſeeded.*

Stem

* *Stem twining.*

CONVOL'VULUS *arven'ſis*. Leaves arrow-ſhaped, pointed on each ſide. Fruit-ſtalks bearing generally 1 flower. LINN.—Flower-ſcales awl-ſhaped, at a diſtance from the flowers. HALL. ST. *ſmall*

Curt. ii. 20.—*Fl. dan.* 459.—*Walc.*—*Fuchſ.* 258, *cop. in J. B.* ii. 157.—*Trag.* 806.—*Ger.* 712. 2.—*Cluſ.* ii. 50. 1, *repr. in Dod.* 393, *Lob. obſ.* 340. 2, *and Ger. em.* 861. 2, *and cop. in Park.* 171. 2, *and H. ox.* i. 3. 9.—*Matth.* 1011, *as evident from its empal. and habit, though the lobes of the leaves reſemble thoſe of C. ſepium.*

Bloſs. reddiſh white; ſtriped, or purple

Corn fields, and road ſides. P. June. July.

Cows, Horſes, Goats, and Sheep eat it. Swine refuſe it.

The bloſſoms give a deep yellow or orange tincture to water, which is heightened by alum and alkalies.

β. auriculatus. JUSS. ST.—Leaves ſtrap-arrow-ſhaped, ſmaller. Flowers ſmaller. RAY. ST. eared

Pluk. 24. 3.

Leaſt Bindweed.—Between Harleſton and Everſden, Cambridſh. RAY.

γ. Bloſs. very ſmall, divided almoſt to the baſe. ſmallflowered

Near Maidſtone. RAY.

CONVOL'VULUS *ſe'pium*. Leaves arrow-ſhaped, the poſterior angles lopped. Fruit-ſtalk 4-cornered, bearing 1 flower. LINN.—Flower-ſcales heart-ſhaped. HALL. —Cloſe to the flower. ST. *great*

Curt. i. 6.—*Fl. dan.* 458.—*Sheldr.* 56.—*Blackw.* 38.—*Dod.* 392, *repr. in Lob. obſ.* 340. 1, *Ger. em.* 861. 1, *and cop. in Park.* 163. 3, *and H. ox.* i. 3. 6.—*Ger.* 712. 1.—*Fuchſ.* 720, *cop. in J. B.* ii. 154.—*Trag.* 805.—*Blair.* 4. 3.—*Swert.* ii. 14. 8. —*(Matth.* 1212, *is ſome other ſpecies.)*

Edges of the *leaves* brown. *Bloſſoms* white. LINN.—*Floral-leaves* 2; cloſe to the cup.

Moiſt hedges. P. July. Aug.

The inſpiſſated juice of the plant, in doſes of 20 and 30 grains, is a powerful draſtic purge. Scammony is the inſpiſſated juice of a ſpecies of Convolvulus ſo much reſembling this, that they are with difficulty diſtinguiſhed. Can it then be worth while to import Scammony from Aleppo at a conſiderable annual expence, when a medicine with the very ſame properties grows ſpontaneouſly in many of our hedges? But though an acrid purgative to the

human race, it is eaten by Hogs in large quantities without any detriment.

Sheep, Goats, and Horſes eat it. Cows refuſe it.

** *Stem not twining.*

ſea CONVOL'VULUS *Soldanel'la.* Leaves kidney-ſhaped. Fruit-ſtalks with 1 flower.—

Matth. 469.—*Dod.* 395, *repr. in Lob. obſ.* 329. 2, *Ger. em.* 838. 1, *and cop. in Park.* 168. 2. 6, *and H. ox.* i. 3. 2.—*Ger.* 690.

Root, on being broken, pours out a whitiſh water, bitter, ſalt, and unpleaſant to the taſte. PARK.—*Stems*, in open ground ſhort, and lying flat, taking a ſemi-circular direction; but among buſhes grows to ſome length unbranched, bearing no flowers. *Leaves* ſometimes heart-ſhaped. *Leaf-ſtalks* long. Mr. WOODW.—*Flower-ſcales* at the baſe of the flower, incloſing the empalement; 2 oppoſite, heart-oblong, nicked at the end juſt longer than the empal. *Empal.* rather of 5 leaves; *leaves* oblong, the innermoſt involving the fruit, and each ſucceſſively wrapping round thoſe beneath it. ST.—*Bloſſoms* red.

Scottiſh Scurvy Graſs. Sea Colewort.

Sea ſhore. [Norfolk coaſt, frequent, Mr. WOODWARD.]

P. July.

Half an ounce of the juice, or a dram of the powder, is an acrid purge. The leaves applied externally are ſaid to diminiſh dropſical ſwellings of the feet. The different ſpecies furniſh nouriſhment to the *Sphinx convolvuli* and *Phalæna Elpenor.*

233. POLEMO'NIUM. Jacobsladder.

EMPAL. *Cup* beneath; of 1 glaſs-ſhaped leaf; permanent; ſharp; with 5 ſhallow clefts.

BLOSS. 1 *petal*; wheel-ſhaped. *Tube* ſhorter than the cup, cloſed by 5 valves, placed at the top of it. *Border* with 5 diviſions; large; flat. *Segments* roundiſh; blunt.

CHIVES. *Threads* 5; thread-ſhaped; inclining; ſhorter than the bloſſom; ſtanding upon the valves of the tube. *Tips* roundiſh; fixed to the thread ſideways.

POINT. *Seed-bud* egg-ſhaped, ſharp. *Shaft* thread-ſhaped; as long as the bloſs. *Summit* with 3 clefts, rolled back.

S. VESS. *Capſule* covered, egg-ſhaped, but with 3 angles; 3 cells and 3 valves.

SEEDS. Several; irregular; rather pointed.

ESS.

Ess. Char. *Bloſs. with* 5 *diviſions, cloſed at the bottom with valves which bear the chives. Summit cloven into* 3. *Capſule* 3*-celled; ſuperior.*

POLEMO'NIUM *cœru'leum.* Leaves winged. Flowers upright. Empal. longer than the tube of the bloſſom.— *common*

Tourn. 61. 1, *parts of fructif.—Fl. dan.* 255.—*Dod.* 352. 1, *repr. in Lob. obſ.* 412. 1, *Ger. em.* 1076. 5, *and cop. in Park.* 123. 12, *and J. B.* iii. 212. 2.—*Ger.* 918. 5.—*Swert.* ii. 28. 3.

Little leaves egg-ſpear-ſhaped; 11 pair or more on each leaf. *Bloſs.* blue.—*Greek Valerian. Ladder to Heaven.*

[Malham Cove, Yorkſh. Ray. Mr. Wood.—And at the Lover's Leap, Buxton. Mr. Wood.—Near Bakewell. Mr. Whately.]

P. June.

Its beauty has obtained it a place in our gardens.

Cows, Goats, and Sheep eat it. Horſes are not fond of it.

β. Bloſs. white. *Fl. ſuec.* St.—I have ſeen ſeveral ſtems, which, on examination, appeared to riſe from one and the ſame root, ſome of which bore blue, and others white bloſſoms. Linn. —"I have a ſort of it whoſe bloſs. is all white, which came upp of the ſeede of the blew one." *M. S. note in a copy of Ger. em. in an old hand.* *white*

About Malham Cove. Ray.

234. CAMPAN'ULA. Bellflower.

Empal. *Cup* with 5 diviſions; ſharp; not quite upright; ſuperior.

Bloss. 1 *petal*; bell-ſhaped; with 5 clefts, cloſe at the baſe; ſhrivelling. *Segments* broad; ſharp; open. *Honey-cup* in the bottom of the bloſſom, compoſed of 5 ſharp valves; approaching and covering the receptacle.

Chives. *Threads* 5; hair-like; very ſhort; growing upon the ends of the honey-cup valves. *Tips* compreſſed; longer than the threads.

Point. *Seed-bud* beneath; angular. *Shaft* thread-ſhaped; longer than the chives. *Summit* thick; oblong; with 3 diviſions which are rolled backwards.

S. Vess. *Capſule* roundiſh; angular; of 3 or 5 cells, and letting out the ſeed at as many lateral holes.

Seeds. Numerous; ſmall. *Receptacle* columnar, fixed to (the capſule?)

Ess. Char. *Blos. bell-shaped, closed at the base by valves which support the chives. Summit cloven into* 3. *Capsule beneath, opening by lateral orifices.*

Obs. The figure of the S. vess. is different in different species.

* *Leaves rather smooth and narrow.*

round-leaved CAMPAN'ULA *rotundifo'lia.* Root-leaves kidney-shaped; stem-leaves strap-shaped. Linn.—*Root-leaves sometimes heart, and stem-leaves sometimes spear-shaped.* St.

Curt. iv. 38.—*Fl. dan.* 855, *erroneously named C. Rapunc. which see; the heart-shaped root-leaves having been probably overlooked, agreeably to what Mr. Curtis remarks, that when growing among herbage they are seldom observed, unless particularly sought for.—Walc.—Clus.* ii. 173, *repr. in Dod.* 167, *Lob. obs.* 178. i, *Ger. em.* 452. 3; *and cop. in Park.* 651. 11, *and H. ox.* v. 2. 17, *and J. B.* ii. 810. 1.—*ib.* 796.—*Ger.* 367. 3.

Leaves sometimes very entire; the lower stem-leaves sometimes sparingly serrated. St.—*Stem* round, smooth. *Leaves* sometimes thread-shaped. *Empal. segments* considerably expanded when out of blossom. *Honey-cup, valves* fringed, white. *Capsule* with 3 cells. *Blos.* blue, or purple; sometimes white. With.

Heaths and barren pastures. P. Aug.—Oct.

The juice of the petals stains blue, but with the addition of alum, green. A green pigment is obtained from them.

Cows, Horses, Goats, and Sheep eat it. Swine refuse it. Linn. —A horse refused it. St.

lesser *β. minor.* Stem-leaves broader, serrated. Hall.

C. B. pr. 34, *cop. in J. B.* ii. 810. 1, *and H. ox.* v. 2. 16.—*Barr.* 453.—*(Scheuch. it.* vi. *f.* 14, *has very entire leaves. C. minor. alp. rotundifolia. imis fol. R. syn.* 277.)

Mountains. Snowdon. Rickmansworth, Hertfordshire, and Croydon, Surry. Ray.

γ. Stem-leaves more numerous than those of *α.* Linn.

Fl. dan. 198, *root-leaves heart-shaped, very entire. Stem-leaves spear-shaped; one flower on each stem. C. uniflora.* Huds. *ed.* i.

Highest mountains of Wales and Westmoreland. Huds.—Hill of Moncrief, near Perth. Lightf.—[Skiddaw. Mr. Woodw.]

field CAMPAN'ULA *pat'ula.* Leaves quite straight. Root-leaves spear-oval. Panicle open.—

Dill. 58. 68.—*Fl. dan.* 373, *flowers the best.*

Empal. with a small livid tooth on each side, at the base of the segments. Linn.——*Empal.* leaves awl-shaped. Pollich. Mr. Woodward.—Half as long as the blossom.—*Blos.* purplish blue.

St.

St.—*Stem* angular, corners hairy; *ſtem-leaves* bluntly and ſlightly notched. Mœnch. Mr. Hollefear. St.—Hairs of the ſtem pointing downwards. St.—*Stem* containing a milky juice, with 5 corners and 5 flat ſides; the corners and ſometimes the ſides rough with ſhort hairs. *Leaves* ſpear-ſhaped, ſomewhat toothed, and ſometimes finely ſerrated. *Empal. ſegments* towards the baſe ſerrated with minute teeth, but not livid; conſiderably expanding when out of bloſſom. *Bloſs.* more of a reddiſh purple than in *C. rotundifolia*; *ſegments* turned back, and each marked with 3 lines. *Honey-cup* white, fringed. *Capſule* 3-celled. With.

Woods, hedges, corn fields, and road ſides. [Buddon Wood, near Loughborough; between Lichfield and Meriden; and about Worceſter. Huds. Nash. St.—And Malvern. Nash.—Near the Bath, at Lichfield; and on the road to Coleſhill. Mr. Woodward.] B. July. Aug.

CAMPAN'ULA *Rapun'culus*. Leaves waved. Root-leaves ſpear-oval. Panicle compact.— *Rampion*

Dod. 165. 1, *repr. in Lob. obſ.* 178. 2, *Ger. em.* 453, *and cop. in Park.* 648. 1, *and H. ox.* v. 2. 13.—*Fuchſ.* 214, *cop. in J. B.* ii. 795.—*Ger.* 369. 2.—*Trag.* 727.—*(Col. phytob.* 22, *cop. in H. ox.* v. 2. 13, *is a different plant.—Fl. dan.* 855, *is C. rotundifolia. Flowers pendant. Stem ſmooth. Root fibrous.)*

Stem angular, rough. *Leaves* ſpear-ſhaped. *Bunch* terminating. *Branches* reſembling it, but ſhorter and upright. *Fruit-ſtalks* generally growing by threes, the middle one the longeſt. Linn.—*Flowers* upright. Dodon. St.—*Root* white, like that of Navew. Hall. St.—About 3 inches long. *Stem* upright. *Branches* alternate. *Leaves* obſcurely notched. *Flowering-branches* ſub-dividing at the baſe. Empal. ſegments awl-ſhaped, with a ſmall tooth on each ſide of the baſe. Pollich. St.—*Stem* not rough. Whole *plant* full of a milky juice. *Empal.* ſegments briſtle-ſhaped. *Bloſs.* each ſegment marked with 3 lines. *Honey-cup* fringed. With. St.—*Root* ſpindle-ſhaped, ſometimes branching.—*Stem* hairy towards the baſe, ſmooth above. *Leaves* towards the baſe of the ſtem hairy above or on both ſides, blunt; the upper ſmooth and becoming gradually more pointed; *teeth* of the notches glandular, whitiſh, not projecting beyond the edge of the leaf.—*Flowering-branches* dividing into 3; the *middlemoſt* in the upper part of the panicle ſupporting 1 flower, in the lower part becoming a leſſer panicle; the *lateral* ones very ſhort, each ſupporting 1 flower, which bloſſoms after that of the middle branch, and has at its baſe the rudiment of 2 other flowers. *Flower-leaves*, one at the baſe of each fruit-ſtalk, awl-ſhaped. *Empal. ſegments* twice as long as the ſeed-bud. Bloſs. bluiſh purple, ſometimes whitiſh pale purple. St.

Ditch

Ditch banks, fallow fields. Near Croydon. HUDS. ST.—And Eſher, in Surry. HUDS.—[Old Buckenham Caſtle, Norfolk. Mr. PITCHFORD.—About Hindlip and Enville, Worceſterſh. ST.]
B. Aug.

The roots are eaten raw in ſallads, or boiled like aſparagus. In gardens they are blanched.

** *Leaves rough, and rather broad.*

broad-leaved CAMPAN'ULA *latifo'lia*. Leaves egg-ſpear-ſhaped. Stem undivided, cylindrical. Flowers ſolitary, on fruit-ſtalks. Fruit nodding. LINN.—Empal. and ſtem ſmooth. *Flowers ſometimes* 2 *on a fruit-ſtalk*. HALL. Mr. WOODW.

Fl. dan. 85, *two flowers and leaf good.—Cluſ.* ii. 172. 1, *repr. in Ger. em.* 448. 3, *and cop. in Park.* 643. 1, *and ill cop. in H. ox.* v. 3. 27.

Leaves ſpear-egg-ſhaped, ſerrated. *Flowers* from the boſom of the upper leaves. *Empal.* ſmooth. LINN.—*Fruit-ſtalks* with 2 awl-ſhaped leaf-ſcales about the middle. Mr. HOLLEFEAR. ST.—*Leaves* nearly ſitting, rough with hair, irregularly ſerrated. *Fruit-ſtalks* upright while in bloſſom, but afterwards bowed downwards. *Empal. ſegments* a little ſerrated. *Bloſs.* oblong-egg-ſhaped, with 5 angles; clefts ſhallow, purple. *Honey-cup* fleſhy, purpliſh, woolly. *Summit* woolly, twice as long as the chives. *Bloſs.* blue, and ſometimes pale red. WITH.

Giant Throatwort.

Thickets and hedges. [In the mountainous parts of the Northern counties, frequent. RAY. Mr. WOODW.] P. July. Aug.

The beauty of its flowers frequently procures it a place in our gardens. The whole plant abounds with a milky liquor.

Horſes, Sheep, and Goats eat it.

nettle-leaved CAMPAN'ULA *Trache'lium*. Stem angular. Leaves on leaf-ſtalks. Cups fringed. Fruit-ſtalks cloven into 3. LINN.—Stem hairy. HALL. Mr. WOODW.—*Fruit-ſtalks ſometimes with only* 1 *flower*. WILLICH. *obſ.* § 84. Mr. WOODWARD. ST.—*Empalement ſometimes free from hairs, except* 1 *or* 2 *ſmall ones at the points*. ST.

Cluſ. ii. 170. 2, *repr. in Dod.* 164. 1, *Lob. obſ.* 176. 2, *Ger. em.* 448. *n.* 1.—*Ger.* 364. 1.—*Fuchſ.* 432, *cop. in Trag.* 927. *and J. B.* ii. 805. 2.—*H. ox.* v. 3. 28.—*Swert.* ii. 16. 4. 5. —(*Garid.* 19, *and Park. par.* 355. 2, *ill done if the plant.*)

Leaves egg-ſhaped, ſomewhat heart-ſhaped, toothed. *Fruit-ſtalks* with 3 flowers. *Bloſs.* ſometimes doubled and tripled. LINN.—*Stem*, corners membranaceous. *Upper-leaves* ſitting. *Empal.* nearly upright.

upright. *Bloſs.* hairy within: when double the chives and honey-cup are wanting. *Summits* hairy. WITH.—*Bloſs.* blue; ſometimes pale red.—*Great Throatwort, or Canterbury Bells.*

Woods and hedges. P. July. Aug.

The whole plant contains a dirty yellow juice.

Cows eat it. Horſes and Goats refuſe it.

β. Bloſs. white. RAY. LINN. white

CAMPAN'ULA *glomera'ta.* Stem angular, undivided. Flowers ſitting. Head terminating.— *cluſtered*

Herm. par. 235.—*Thal.* 8. 2, *cop. in Barr.* 523. 3.—*J. B.* ii. 801. 2, *cop. in H. ox.* v. 4. 40.—*Cluſ.* ii. 171. 1, *repr. in Dod.* 164. 2, *Lob. obſ.* 176. 3, *Ger. em.* 449. 4, *and cop. in Park.* 644, *fig.* 4*th*, *and H. ox. ib.* 43.—(*J. B. ib.* 1, *cop. in H. ox. ib.* 39, *ſeems a different plant.*)

Leaves egg-oblong, bluntiſh, ſitting. *Flowers* three, in the boſom of the leaves. LINN.—*Stem* roughiſh, ſimple. HALL. ST.—But ſometimes branched. HALL. Mr. WOODWARD.—Covered with ſhort hairs. *Root-leaves* egg-ſpear-ſhaped, covered with ſhort hairs; on long leaf-ſtalks. *Empal.* the ſame. POLLICH. ST.—*Leaves* ſometimes heart-ſpear-ſhaped, and rather acutely pointed. *Bloſs.* hairy. Mr. WOODWARD. St.—*Lower-leaves* on leaf-ſtalks. *Bloſs.* blue, reddiſh, or white. WITH.

Little Throatwort, or Canterbury Bells.

Mountainous and chalky paſtures.—[Near Pontefract. Mr. T. F. HILL.—Chalk Hills, in Norfolk. Mr. WOODW.; and Surry; and between Grantham and Wilham Common. ST.] P. July.

*** *Capſules covered by the reflected ſegments of the cup.*

CAMPAN'ULA *hy'brida.* Stem quite ſtraight, ſomewhat branched at the baſe. Leaves oblong, ſcolloped. Cups incorporated, and longer than the bloſſom. Capſ. priſm-ſhaped. LINN.—Empalement, ſegments oval-ſpear-ſhaped. ST. *corn*

Ger. em. 439. 2, *cop. in Park.* 1331. 2, *and H. ox.* v. 2. 22.

Differs from *C. ſpeculum*, which I regard as its mother; as follows: *Stem* branched only at the baſe, and ſcarcely branched at all above. *Cups* ſitting, 3 or 4 together. *Bloſs.* often lurking in the rudiment of a flower, and not expanding. But notwithſtanding there is ſcarcely a doubt but it originated from the *C. ſpeculum.* LINN.—*Empal. ſegments* broader than in *C. ſpeculum.* WILLICH. *obſ.* § 87.—Thoſe of the *C. ſpeculum* awl-ſhaped, tapering to a fine point, narrower. ST.—Permanent, crowning the ripe capſule. Mr. WOODWARD.—*Bloſs.* purple; deeply divided.

Leſſer

Leſſer Venus Looking Glaſs. Codded Corn Violet.

Chalky corn fields. [Bury and elſewhere in Suffolk, in chalky corn fields. Mr. WOODWARD.] A. June. July.

ivy-leaved CAMPAN'ULA *hedera'cea*. Leaves heart-ſhaped, with 5 lobes, on leaf-ſtalks, ſmooth. Stem limber.—

J. B. ii. 797.—*H. ox.* v. 2. 18.—*Pluk.* 23. 1.—*Pet. Gaz.* 51. 2. —[*Fl. dan.* 330, *bad; leaves not lobed, but ſerrated, and deeply nerved.* Mr. WOODWARD. WITH. and ST.]

Bloſs. blue. Is not this plant derived from the ſeed-bud of one of the *Campanulas* fertilized by the duſt of the *Veronica hederæfolia?* LINN.—*Lower-leaves* heart or kidney-ſhaped, nearly entire. Mr. WOODWARD.—*Stems* thread-ſhaped, trailing, matted together, covering ſpots of a foot diameter. Mr. WATT.—*Threads* longer than the tips. WITH.

Moiſt ſhady places. [About ſprings and rivulets in Cornwall, very frequent. Mr. WATT.——Woods in Oxfordſhire. Mr. NEWBERRY.] P. May.—Aug.

Phalæna exſoleta feeds upon the different ſpecies.

236. PHYTEU'MA. Rampion.

EMPAL. *Cup* 1 leaf; with 5 diviſions; ſharp; not quite upright; ſuperior.

BLOSS. 1 *petal*; ſtarry; expanding; with 5 diviſions; *ſegments* ſtrap-ſhaped; ſharp; bent back.

CHIVES. *Threads* 5; ſhorter than the bloſs. *Tips* oblong.

POINT. *Seed-bud* beneath. *Shaft* thread-ſhaped; as long as the bloſſom; bent back. *Summit* with 3 diviſions; oblong; rolled back.

S. VESS. *Capſule* roundiſh; 3-celled.

SEEDS. Several; ſmall; roundiſh.

ESS. CHAR. *Bloſs. wheel-ſhaped, divided into* 5; *ſegments ſtrap-ſhaped. Summit cloven into* 2 *or* 3. *Capſule of* 2 *or* 3 *cells; beneath.*

round-headed PHYTEU'MA *orbicula'ris*. Head roundiſh. Leaves ſerrated. Root-leaves heart-ſhaped. LINN.—*Spike ſometimes oblong.* HUDS.

Jacq. auſtr. v. 437.—*Barr.* 525.—*Riv. mon.* 109. 1, *lower part of the ſtem wanting.*—*H. ox.* v. 5. 47.—*Ger. em.* 455. 5.—(*J. B.* ii. 810. 1, *is Campanula rotundifolia.* β.)

Bloſſoms purple; or bluiſh.

Chalky

Chalky paſtures. Downs of Suſſex and Hampſhire. Near Leatherhead. P. July. Aug.

238. SAM'OLUS. Brookweed. *(Hill.)*

EMPAL. *Cup* with 5 diviſions; ſuperior; blunt at the baſe; permanent; *ſegments* upright.

BLOSS. 1 *petal*; ſalver-ſhaped. *Tube* open; very ſhort; as long as the cup. *Border* flat; with 5 blunt diviſions. *Valves* very ſhort; approaching; fixed to the bottom of the clefts in the border.

CHIVES. *Threads* 5, ſhort; 1 between each ſegment of the bloſſom. *Tips* approaching; covered.

POINT. *Seed-bud* beneath. *Shaft* thread-ſhaped; as long as the chives. *Summit* knobbed.

S. VESS. *Capſule* egg-ſhaped; of 1 cell, and 5 valves; opening half way down; bound round by the cup.

SEEDS. Many; egg-ſhaped; ſmall. *Receptacle* large; globular.

ESS. CHAR. *Bloſs. ſalver-ſhaped. Chives defended by the ſcales of the bloſſom. Capſule of* 1 *cell; beneath.*

SAMO'LUS *Valeran'di.*— *Pimpernel*

Fl. dan. 198.—*Curt.* iv. 45.—*Lob. obſ.* 249. 1, *repr. in Ger. em.* 620. 3, *and cop. in Park.* 1237. 5, *J. B.* iii. 792. 1, *and H. ox.* iii. 24. 26, *with the ſeed veſſel of Veronica.*—*ib.* 28.

Leaves oblong-egg-ſhaped; very entire. *Bloſſoms* white.

Round-leaved Water Pimpernell.

Marſhes and moiſt meadows.——[In the large ditches leading from Poplar to the Iſle of Dogs, oppoſite to Greenwich. Mr. JONES.—Side of the brook running from the brine pit on Defford Common, Worceſterſh. Meſſrs. BALLARD and HOLLEFEAR.—Lord Shelburne's Park, near Calne, Wiltſh. ST.] P. June.

Cows, Goats, and Sheep eat it. Horſes refuſe it.

An inhabitant of every quarter of the globe. CURT.

250. LONICE'RA. Honeyſuckle.

EMPAL. *Cup* ſuperior; with 5 diviſions; ſmall.
BLOSS. 1 *petal*; tubular. *Tube* oblong; bulging. *Border* with 5 diviſions. *Segments* rolled backwards; 1 ſegment more deeply ſeparated than the others.
CHIVES. *Threads* 5; awl-ſhaped; nearly as long as the bloſſom. *Tips* oblong.
POINT. *Seed-bud* beneath, roundiſh. *Shaft* thread-ſhaped; as long as the bloſſom. *Summit* a blunt knob.
S. VESS. *Berry* with 2 cells, and crowned with the cup at the top.
SEEDS. Roundiſh; compreſſed.
ESS. CHAR. *Bloſs.* 1 *petal, irregular. Berry beneath, with ſeveral ſeeds, and 2 cells.*

Woodbind LONICE'RA *Periclymenum.* Heads egg-ſhaped, tiled, terminating. All the leaves diſtinct.—

Curt. 1. 1.—*Riv.* 122.—*Blackw.* 25.—*Fuchſ.* 646, *cop. in Trag.* 822, *and J. B.* ii. 104. 1.—*Ger.* 743. 1.—*Dod.* 411. 1, *repr. in Lob. obſ.* 358. 1, *Ger. em.* 891. 1, *and cop. in Park.* 1460. 1.

Bloſs. the *lower ſegment* divided twice as deep as the reſt. *Stem* and *leaves* ſmooth. LINN.——*Stem* ſcored. *Leaves* ſpear-egg-ſhaped, ſmooth, ſitting, oppoſite. *Heads* with from 5 to 30 flowers, or more. *Bloſs. tube* ſomewhat crooked, diſtended on the under ſide towards the top, beſet on the outſide with fine ſhort hairs, crowned with globular glands; the lower part is a receptacle for honey. *Tips* yellow. *Summit* greeniſh. *Bloſs.* red on the outſide; yellowiſh within. *Berries* red. WITH.

Common Honeyſuckle. Woodbine.

Hedges. S. May.—July.

The beauty and fragrance of its flowers renders it a pleaſing ornament to our gardens, hedges, and harbours.

Cows, Goats, and Sheep eat it. Horſes refuſe it. *Sphinx Liguſtri*, and *tipuliformis*; and *Phalæna dydactyla*, and *hexadactyla* feed upon it.*

oak-leaved β. Leaves indented. [In Sir J. Woodhouſe's Woods, Norf. Mr. WOODWARD.]

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* *Lonicera Xyloſteum* is ſaid by Wallis, p. 149, to grow under the Roman Wall, on the weſt ſide of Shewing Sheels, in Northumberland.

262. VERBAS'CUM. Mullein.

EMPAL. *Cup* of 1 leaf, with 5 diviſions; ſmall; permanent; *ſegments* upright; ſharp.

BLOSS. 1 *petal*; wheel-ſhaped. *Tube* cylindrical; very ſhort. *Border* with 5 diviſions, expanding; *ſegments* egg-ſhaped, blunt.

CHIVES. *Threads* 5; awl-ſhaped; declining; ſhorter than the bloſſom. *Tips* roundiſh; compreſſed; upright.

POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; inclining; as long as the chives. *Summit* rather thick and blunt.

S. VESS. *Capſule* roundiſh, with 2 cells, opening at the top. *Receptacle* the ſhape of half an egg; fixed to the partition.

SEEDS. Numerous; angular.

ESS. CHAR. *Bloſs. wheel-ſhaped, ſomewhat unequal. Capſule 1 cell, 2 valves.*

OBS. In moſt of the ſpecies the *Chives* are inclining, unequal, and the bottom of the *Threads* cloathed with ſoft, coloured hairs.

VERBAS'CUM *Thap'ſus.* Leaves running down the ſtem, downy on both ſides. Stem undivided.— *great*

Blackw. 502.—*Fl. dan.* 631.—*Blackw.* 3.—*(Ger.* 629. 1 *and* 2. —*Matth.* 1143, *cop. in Dod.* 143, *repr. in Lob. obſ.* 303. 1, *and Ger. em.* 773. 1, *which again cop. in Park.* 60. 1, *H. ox.* v. 9. *row* 1. 1, *and Pet.* 62. 1. *Spikes nodding, the drawings made from faded ſpecimens, as when growing they are always upright.)*—*(Fuchſ.* 848, *cop. in Trag. and J. B.* iii. 871. 1, *is the plant of C. B. referred by Linn. to the phlomoides.—Ludw.* 124, *has bloſſoms wider than the ſpikes; probably V. Thapſ. bicolle, Murr. pr.* 47*?)*

The whole *plant* woolly; in dry ſituations very tall. *Spike* club-like. LINN.—*Threads*, 2 ſmooth, the reſt woolly. J. BAUH. ST. —*Spikes* ſometimes branched, (as in the fig. of Ger. ST.)—*Leaves* ſcolloped, notches concealed by the down. *Flower-leaves* ſpear-ſhaped. *Bloſs.* 2 upper ſegments ſhorteſt, the lowermoſt longeſt. *Threads*, 3 uppermoſt with a whitiſh beard; 2 lowermoſt bare. HALL. ST.—*Threads*, the two lowermoſt longer than the other 3. LEERS. ST.—*Flowers* ſitting. MŒNCH. ST.—*Leaves*, upper ones taper-pointed. *Flower-leaves* ſmooth within, awl-pointed, 5 in each ſet of flowers; the lowermoſt the largeſt, as long as the flower; 2 pairs above, of which the lowermoſt the ſmalleſt. *Flowers*

4 in

4 in a ſet, with a minute rudiment of others at the baſe of each flower-leaf; the *lowermoſt* between the lowermoſt pair of flower-leaves, which bloſſoms the ſecond; the *lateral ones* at the baſe of each of the upper flower-leaves; and the *uppermoſt* above them, which bloſſoms firſt. *Bloſs.* bright yellow, from 10 lines to 1 inch 2 lines in diameter. *Threads*, the 2 *lowermoſt* with a few hairs from about the middle. *Tips* bright orange. *Capſule* egg-ſhaped, blunt. *Down* thread-ſhaped, with ſeveral ſets of lateral ſimple-pointed branches, and terminated by a ſet expanding ſtarwiſe. ST.—*Verbaſcum Thapſus.* POLLICH.—Seems a variety with larger bloſſoms. "*Flowers* ſomewhat more than 1½ inch in diameter," accords with thoſe of *Ludw.* 124. See alſo *Willich in Reich. ſyll. p.* 91. ST. —*Leaves* egg-ſpear-ſhaped. *Shaft* woolly towards the baſe. *Bloſs.* in a long terminating ſpike, yellow. WITH.

Great White Mullein. High Taper. Cows Lungwort. Ladies Foxglove.

Dry ditch banks, in chalky and gravelly ſoil. B. July.

Externally uſed it is emollient. Dr. Home adviſes a decoction of it, 2 ounces to a quart, in diarrhœas of an old ſtanding: he gave a quart every day. *Clin. Exp. p.* 439. it eaſes the pains of the the inteſtines; is uſed as an injection in teneſmus with advantage; and is often applied externally to the piles. *ib.*—It is ſaid to intoxicate fiſh ſo that they may be taken with the hand.—In Norway they give it to cows that are conſumptive.—The down ſerves for tinder.

Neither Cows, Goats, Sheep, Horſes, or Swine will eat it.—The *Phalæna Verbaſci*, and the *Curculio Scrophularia*, live upon it.

whiteflower'd 2. Bloſs. white. Mr. STONE.

baſtard VERBAS'CUM *Thapſoi'des*. Leaves running down the ſtem. Stem branched.—

Fuchſ. 846, *cop. by Dod.* 143. 2, *Ger. em.* 773. 2, *and J. B.* iii. 872. 4.

A hybrid plant, produced in the gardens of Upſal, in the year 1761, from the ſeeds of the *V. Lychnitis*, impregnated by the duſt of the *V. Thapſ.* both which grew in the ſame bed. Seen long ago by Agerius, who ſent it to J. Bauh. from whom ſucceeding authors have copied it. Agrees with *V. Lychn.* in its branching *ſtem*; its *flowers*, and alſo tho' leſs ſo in the purple hairs of the *threads*; & with the *V. Thapſ.* in ſize, in its *leaves*, which run down the ſtem, though not all the way, and which are not ſo white; in its *empal.* which, however, have longer *fruit-ſtalks*, tho' not ſo long as thoſe of the *V. Lychn.* In a word, it is not a diſtinct ſpecies, but rather a variety of *V. Lychnites*. LINN.

Chalky and ſandy meadows and paſtures, in Kent. HUDS.

B. July. Aug.

VERBAS'CUM

VERBAS'CUM *Lychni'tis*. Leaves wedge-oblong. *hoary*
LINN.—*Root-leaves ſometimes wedge-oblong, but moſt commonly oblong-ſpear-ſhaped.* ST.

Stem panicled. *Leaves* ſpear-ſhaped, the lower ones tapering down into leaf-ſtalks. *Fruit-ſtalks* crowded, undivided. LINN.—*Stem* branching. *Leaves* on ſhort leaf-ſtalks; the *upper* ſitting. HALL. Mr. WOODWARD. B. July.

α. *pulverulentum*. Mr. WOODWARD. ST.—Whole plant covered *dusty*
with a mealy down. SCOP. Mr. WOODWARD. ST.—Lower-leaves imperfectly notched; the upper egg-ſpear or egg-ſhaped. Mr. W. ST.—Down eaſily rubbing off. RAY. ST.—Bloſſoms ſprinkled with glandular globules. ST.

J. B. iii. 873. 1.

When a part of the *down* falls off, what remains gives the plant the appearance of having been ſprinkled over with powder. *Stem* 4 to 5 feet high. *Leaves*, the *upper* ſometimes embracing the ſtem; *uppermoſt* more and more pointed, and at length taper-pointed. *Bloſs.* yellow. Mr. WOODWARD. ST.—*Leaves*, the *upper* egg-ſhaped, or oblong, ending ſuddenly in a finely tapering point. *Down* of a clear white, flock-like, equally thick on each ſide of the leaf, readily coming off on paſſing the leaf or ſtem between the finger and thumb; viewed in the microſcope appears to be compoſed of diſtinct hairs beautifully branched. *Bloſs.* to 7½ lines in diameter, with little or no down upon it. ST.

About Norwich. RAY [and Mr. PITCHFORD.—Very common in Norfolk. Mr. WOODWARD.]—Bury, and Wollerton, Northamptonſhire. RAY.

Neither Cows, Goats, Sheep, Horſes, or Swine will touch it.

β. *album*. ST. Lower-leaves nearly ſmooth above, downy un- *whiteflower'd*
derneath, deeply notched; the upper ſpear-ſhaped; the uppermoſt ſtrap-ſpear-ſhaped. Mr. WOODW. ST.—Down adhering firmly to the leaf; ſometimes rather woolly than downy underneath. ST.

Ger. 631. 1, *cop. in Pet.* 62. 4.—*Fuchſ.* 847, *cop. in J. B.* iii. 873. 2.—*Matth.* 1147, *cop. in Lob. obſ.* 303. 2, *repr. in Ger. em.* 775. 3, *and cop. again in Ger.* 632. 3.—*Fl. dan.* 586.—*A branch, &c. Fl. dan.* 586.

Threads equal, woolly. LEERS.—*Lower-leaves* of a darkiſh green. J. BAUH. ST.—*Bloſs.* ſmall, white. J. BAUH. Mr. WOODW. ST.—*Stem* ſeldom more than 3 feet high. *Fruit-ſtalks* longer than in α. Mr. WOODW. ST.—*Lower-leaves* of a pleaſant green, their upper ſurface ſhining. Mr. WOODWARD.—The differences noted above were the reſult of a compariſon of α growing wild, with β cultivated, though, I very much doubt, whether they can be thought ſufficient to eſtabliſh a ſpecific difference between them. Mr. W.

—*Stem*, *branches*, *fruit-ſtalks*, and *empalement* covered with a cloſe ſhort down. *Leaves* ſlightly downy, and often ſmooth. POLLICH. ST.—*Leaves* thicker than thoſe of α; the *lower* betwixt toothed and notched; the *upper* with a degree of downineſs on the upper ſurface; in all the native ſpecimens covered underneath with a cloſe compact down, which renders them opaque; in the cultivated ſpecimens rather woolly *(villoſa)* and readily admitting the light through them. *Down* of a dirty white, cloſe, ſhort, may be ſcraped off by the nail, but not by paſſing it between the finger and thumb. *Flowering-branches* numerous, ſcattered, open, ſhorter than the ſtem. *Flowers* thick ſet, on fruit-ſtalks, bundled. *Bloſs.* dirty white, and on drying changes to a reddiſh white; $5\frac{1}{2}$ lines in diameter; *ſegments* oblong, inverſely egg-ſhaped; the lower gradually ſmaller, ſprinkled above, and eſpecially underneath, with a down, but no glandular globules. *Threads* yellowiſh white; all bearded with long hairs; club-ſhaped at the end. *Tips* and *duſt* ſaffron-colour. *Shaft* broken back at a very obtuſe angle, beſet with down at the baſe. I believe them to be diſtinct ſpecies, but, I muſt at the ſame time own, that of the *pulverulentum*, I have ſeen only dried ſpecimens. In Lord Stamford's pleaſure ground, at Enville, is a plant correſponding in all reſpects with the above deſcriptions, except that the bloſſoms are pale yellow, with glandular dots on the under ſurface. I believe it to be a real variety of the *album*. Ray accordingly in his *Cat. plant. exterar.* ſpeaks of white and yellow having riſen from the ſeed of the ſame plant. ST.

Verbaſcum album. MILL. according to Reich. but Mill. characteriſes it, "Leaves *heart*-oblong." ST.

Chalky and ſandy meadows and paſtures, road ſides, Kent.—[Has never been found in Norfolk. Mr. WOODWARD.—On the ramparts of Bruſſels, and there the *pulverulentum* is not to be found.—Enville, near the Rock Houſes. ST.]

black VERBAS'CUM *ni'grum*. Leaves heart-oblong, on leaf-ſtalks.—

Fuchſ. 849, *cop. in Dod.* 144. 1, *J. B.* iii. 873. 3, *and imitated in Trag.* 218.—*Ger.* 631. 2.—*(Ger. em.* 775. 2.—*H. ox.* v. 9. *row* 2. 5, *only upper-leaves)*—*(Matth.* 1145, *more branched than I have ever ſeen it.)*

Leaves notched, downy underneath. *Stem* angular. *Spike* looſe, ſometimes branched. LINN.—*Leaves* wrinkled; the *upper* egg-ſpear-ſhaped, pointed. HALL. ST.—*Leaves* (the lower) doubly notched. *Threads*, all bearded. SCOP. ST.—*Flowers* on fruit-ſtalks, bundled. *Leaves* gradually ſmaller upwards; the uppermoſt nearly ſitting. POLLICH. ST. W.—*Stem* beſet with ſcattered down; angles more

numerous

numerous upwards, being continuations of the edges of the leaf-ſtalks tinged of a dirty purple. *Down* jointed, with ſimple awl-ſhaped branches from the joints; that on the flowers forked. *Flowers* from 5 to 9, but generally 7 in a ſet, with rudiments of others, but ſeldom more than 4 come to perfection, bloſſoming in the ſame order as thoſe of the V. Thapſus. *Fruit-ſtalks* as long as the flowers, lying to the ſtem, becoming longer during bloſſoming; ſometimes, though rarely, with 2 or 3 flowers. *Flower-leaves*, 3 to each ſet, the lowermoſt the largeſt, the uppermoſt awl ſhaped. *Bloſs.* from 8 lines to 1 inch diameter, pale yellow; tube and edges of the mouth with pointed blotches of browniſh purple. *Threads* from the middle to near the point purple, and generally beſet with purple hairs, above and below tawny, but in ſome plants there are no hairs, or only 1 or 2 ſcattered ones to be ſeen; the uppermoſt the ſhorteſt, the reſt gradually longer downwards. *Hairs* ſlightly club-ſhaped at the end. *Duſt* deep orange. In habit very much reſembles the *Digitalis purpurea*. St.——*Leaves* heart-ſpear-ſhaped, not doubly ſcolloped; the lower on ſhort broad leaf-ſtalks. *Flowers* about 7 in a ſet. *Spike* long, but not very compact. *Tips* yellow-iſh ſcarlet. *Seed-bud* woolly. *Shaft* thickeſt towards the top. *Summit* green, not extending down the ſhaft. With.

Hedges and road ſides. [Road ſides, ſandy ſoil, Suffolk. Mr. Woodward.—At Hamſtead, betwixt Birmingham and Walſall. With.] P. July.—Sept.

A beautiful plant. The flowers are grateful to bees.

Swine will eat it. Sheep are not fond of it. Cows, Horſes, and Goats refuſe it.

VERBAS'CUM *virga'tum*. Downy. Root-leaves ſomewhat lyre-ſhaped; ſtem-leaves ſitting. Stem branching. Fruit-ſtalks ſeveral together, ſitting.* St. *rodlike*

J. B. iii. 875. 1.?

Stem ſtronger and longer than *V. Blattaria*. *Bloſs.* gold-coloured. *S. veſſ.* round, 2, 3, or more together, but moſt uſually 1. Park. St.—Whole *plant* beſet with very ſhort hairs; *hairs* numerous, ſtraight, whitiſh, with globular heads, which wither away. *Root* branched, ſlanting, biennial, whitiſh, bitter. *Stem* upright, from 5 to 6 ft. high, branching from the bottom, round, marked with ſuperficial angles from the edges of the leaves running down the ſtem, and of a woodlike hardneſs below. *Branches* undivided,

* Pubeſcens, foliis radicalibus ſublyratis, caulinis ſeſſilibus, caule ramoſo, pedunculis aggregatis ſeſſilibus. St.

long, rodlike, alternate, ſolitary, leafy below, beſet with flowers to the length of 2 feet and upwards. *Root-leaves* a good deal reſembling thoſe of the *Common Primroſe*, ſpear-ſhaped-oblong, wing cleft-ſcolloped towards the baſe, unequally and doubly notched, wrinkled; above ſomewhat gloſſy, with ſcattered hairs; *underneath* venous, and woolly; veins hairy, the hairs generally forked, and dotted with minute black dots, which, when viewed with a lens, by tranſmitted light, appear ſemi-tranſparent. *Lower ſtem-leaves* oblong-ſpear-ſhaped, or egg-oblong-ſpear-ſhaped, notched, and ſome of the lowermoſt ſcolloped towards the baſe, narrowing down into very ſhort leaf ſtalks. *Upper ſtem and branch-leaves* egg-ſhaped, or oblong-egg-ſhaped, toothed, not ſerrated as in *V. Boerh.* and *Blatt.* ſitting, not embracing the ſtem as in *V. Blatt.* *Flower-leaves* egg-ſhaped, gradually diminiſhing, the uppermoſt ſpear-ſhaped, and at length becoming a kind of flower-ſcales. *Flowers* nearly ſitting, in ſmall cluſters from the ſides of the ſtem and branches, at moderate intervals; but in plants whoſe main ſtem has been injured they ſometimes appear ſolitary, but, on examination, the rudiments of others will be found at the baſe of each. *Flower-ſcales*, one at the baſe of each flower, the outermoſt egg-ſhaped, taper-pointed, or ſpear-ſhaped, rather ſhorter than the flower; the *inner* ones ſpear-ſhaped, the length of the empal. *Empal. ſegments* ſpear-ſhaped, expanding, as ſoon as the bloſſom is fallen cloſing up, the upper one ſmaller than the reſt. *Bloſs.* with a purpliſh ring round the mouth; 1¼ inch diameter; 2 or 3 in bloom at once. *Fruit-ſtalks* horizontal, very ſhort, ſeldom more than half the length of the empalement, the upper part of the outſide and round the tube beſet with hairs tipt with glands. *Threads* purpliſh on one ſide, and yellowiſh on the other; bearded with thread-like *hairs* club-ſhaped at the joints, which, in the upper one, are whitiſh, in the reſt purple. *Seed-bud* beſet with very ſhort white hairs tipt with glaſs-ſhaped glands. ST.

Blattaria lutea major, ſive, Hiſpanica. Park. 64, *and par.* 383.—*Blattaria lutea fol. long. laciniato altera* 4 *cubitorum*, 3, 4, 5, *et plura vaſcula conjuncta habens. C. B. pin.* 240.?—*Blattaria magno flore. C. B. pin.* 241. *J. B.* iii. 875. *R. hiſt.* 1096. *Tourn.* 148.—*(Not Ger. em.* 778. 5, *cop. in J. B.* iii. 875. 1, *leaves too pointed.)*

Hedge banks, in gravelly ſoil. [Firſt ſhewn me by my late worthy friend Mr. Waldron Hill, of Worceſter, in a field on the S. ſide of a lane leading from Gregory's Mill to the turnpike road, near that town. The ſide of the turnpike road from Worceſter to Ombersley, oppoſite to the lane leading to Beverley; and cultivated for the laſt 3 years at my requeſt by Mr. Brunton, in his nurſery at Perry Hill, near Birmingham, without any perceptible alteration

alteration. It is cultivated alſo in the King's Garden, at Paris, where I pointed it out to my learned and ever to be regretted friend, LINNÆUS THE SON, who aſſured me it had not been deſcribed in his father's works. ST. B. Aug.—Nov.

VERBAS'CUM *Blatta'ria*. Leaves embracing the ſtem, oblong, ſmooth. Fruit-ſtalks ſolitary. LINN.—Leaves ſerrated. HALL. ST. *moth*

Fuchſ. 183, *cop. in Trag.* 925, *and J. B.* iii. 874. 1.—*Ger. em.* 778. 7, *cop. in Park.* 64. 3.—*Ger.* 633. 1, *the beſt leaves.*—*Matth.* 1151, *cop. by Dod.* 145. 1, *repr. in Lob. obſ.* 304. 2, *and Ger. em.* 776. 1; *which cop. in Park.* 61. 5, *Pet.* ii. 62. 5, *and H. ox.* v. 9. *row* 3. 5.—*Swert.* ii. 39. 4, *bad.*—*(Zanon.* 34. 1, *is Celſia orient.*—*Dod.* 145. 2, *is V. phœnic.)*

Upper part of the *plant* ſprinkled with hairs ſecreting a glutinous matter. LINN.—*Leaves* heart-ſpear-ſhaped, ſmooth, wrinkled; *uppermoſt* egg-ſpear-ſhaped, embracing the ſtem. Upper part of the *ſtem* and empalements hairy; *hairs* knobbed at the ends. *Bloſs.* yellow. *Capſule* ſpherical. HALL. ST.—*Stem* 2 to 3 feet high, ſlightly angular, ſmooth. *Leaves* ſomewhat wrinkled. A ſhort ſpear-ſhaped *flower-leaf* at the baſe of each fruit-ſtalk. POLLICH. ST.—*Threads* bearded with club-ſhaped hairs. SCOP. ST.—*Leaves* gloſſy on the upper ſide; ſometimes toothed, and ſometimes notched; *lowermoſt* with winged clefts at the baſe. *Fruit-ſtalks* longer than the flower-leaves. *Threads*, 3 *uppermoſt* bearded from the baſe to the tips, uppermoſt hairs whitiſh; 2 *lowermoſt* bearded from the baſe to a little above the middle. *Seed-bud* covered with ſitting globular glands. ST.

OBS. The genus *Blattaria* of Ray, Tourn. and the old authors, though very properly combined by Linnæus with the *Verbaſcum*, forms a kind of natural ſub-diviſion of the genus, conſiſting of *V. phœnic. Blattaria, and Virgatum. Capſule globular. Hairs of the ſtem and leaves tipt with globular heads.* In the *true Verbaſcums*, *Capſule egg-ſhaped. Hairs branching.* ST.

Yellow Moth Mullein.

Gravelly ſoil. Lane between Mitcham Common and Caſalton, Horns Place, near Rocheſter, between Deptford and Greenwich. RAY.—And about Plymouth. HUDS.

My ſpecimens from gardens, and having never ſeen it growing wild, I have been ſometimes induced to ſuſpect my *virgatum* to have been taken for the true *V. Blattaria*. ST. A June. July.

263. DATU'RA. Thorn-apple.

EMPAL. *Cup* 1 leaf; oblong; tubular; diſtended; with 5 angles and 5 teeth; falling off, but leaving a part of the baſe behind.

BLOSS. 1 *petal*; funnel-ſhaped. *Tube* cylindrical; generally longer than the cup. *Border* not quite upright, almoſt entire; with 5 angles, 5 tapering teeth, and 5 plaits.

CHIVES. *Threads* 5; awl-ſhaped; as long as the cup. *Tips* oblong; blunt; compreſſed.

POINT. *Seed-bud* egg-ſhaped. *Shaft* thread-ſhaped; ſtraight. *Summit* thick, blunt, compoſed of 2 flat plates.

S. VESS. *Capſule* nearly egg-ſhaped; with 2 cells and 4 valves; ſtanding upon the remains of the cup. *Receptacle* large; convex; dotted; fixed to the partition of the capſule.

SEEDS. Numerous; kidney-ſhaped.

ESS. CHAR. *Bloſs. funnel-ſhaped, plaited. Empal. tubular, angular, falling off. Capſule 4-valved.*

common DATU'RA *Stramo'nium.* Seed-veſſel thorny, upright, egg-ſhaped. Leaves egg-ſhaped, ſmooth. LINN.—Leaves indented (ſinuatis.) ST.

Stoerck.—Fl. dan. 436.—*Cluſ. exot.* 289, *repr. in Ger. em.* 348. 2.—*Blackw.* 313.—*Col. phytob.* 12.—*(The references to the old authors in the Germ. ſynon. belong to Datura metel.)*

At night the *leaves*, particularly the upper ones, riſe up and incloſe the flowers. *Bloſs.* white, with ſometimes a tinge of purple, or violet.

Amongſt rubbiſh, and on dunghills. [Trittor Heath, Suffolk, Mr. WOODWARD.]—A native of America, but now naturalized in Europe. LINN. A. July.

An ointment prepared from the leaves gives eaſe in external inflammations and Hæmorrhoids. The Edinburgh College direct an extract to be prepared by evaporating the expreſſed juice of the leaves. This has been given with great advantage in convulſive affections and epilepſies. Out of 14 epileptic patients, 8 were entirely cured by it, at Stockholm. The doſe from 2 to 16 grains a day. *Med. Comm.* i. 368. iii. 22. See alſo *Lond. Med. Jour.* ii. 295. The ſeeds or leaves given internally bring on delirium, tremors, ſwelling, itching, eruption, and inflammation on the ſkin: theſe effects

effects were produced by a doſe of a dram and a half in a girl 9 years old. See Dr. Fowler's account, *Med. Comm. vol.* 5, *p.* 164.

Cows, Goats, Sheep, and Horſes refuſe it.

264. HYOSCY'AMUS. Henbane.

EMPAL. *Cup* 1 leaf, tubular; diſtended in the lower part. *Rim* with 5 cleſts; ſharp; permanent.

BLOSS. 1 *petal*, funnel-ſhaped. *Tube* cylindrical; ſhort. *Border* not quite upright; with 5 ſhallow cleſts. *Segments* blunt, 1 broader than the reſt.

CHIVES. *Threads* 5; awl-ſhaped; inclining. *Tips* roundiſh.

POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; as long as the chives. *Summit* ſomewhat globular.

S. VESS. *Capſule* egg-ſhaped; blunt; marked with a line upon each ſide; of 2 cells, formed by 2 capſules cloſely preſſed together, but cut round, and with a lid opening horizontally. *Receptacle* half egg-ſhaped, fixed to the partition.

SEEDS. Numerous; unequal.

ESS. CHAR. *Bloſs. funnel-ſhaped; blunt. Chives inclining. Capſule 2-celled, with a lid.*

HYOSCY'AMUS *ni'ger*. Leaves embracing the *common* ſtem, indented. Flowers ſitting.—

Ludw. 85.—*Cluſ.* ii. 83, *repr. in Dod.* 450. 1, *Lob. obſ.* 139. 1, *Ger.* 283. 1, *and Ger. em.* 353. 1, *and rudely cop. in Park.* 362. 1.—*Blackw.* 550.—*Riv. mon.* 102.—*Stoerck.*—*H. ox.* v. 11. *row* 2. 1.—*Matth.* 1064.—*Fuchſ.* 833, *cop. in J. B.* iii. 627. 1.—*Trag.* 133.—*(Variety β of the Germ. ſynon. is H. reticulat.)*

Flowers on very ſhort fruit-ſtalks. Mr. HOLLEFEAR.—*Empal.* hairs ſoft, long, and matted with thoſe of the flower next below and above it. *Bloſs.* irregular, gradually tapering down into a tube, with 5 prominent ribs on the outſide; the upper *ſegment* the largeſt, the reſt gradually diminiſhing downwards; the upper inciſions ſhallow, the lowermoſt extending half way to the baſe, and much wider than the reſt. *Threads* white, with ſoft hairs below; the uppermoſt the ſhorteſt, thoſe below gradually increaſing in length. *Empal.* becoming rigid, and the *capſules* continuing on the dead plant till the plants of the next year are in bloſſom; when the leaves being fallen off the fruit appears in bunches pointing 1 way, in 2 rows from 1 ſide of the branch. ST.—Whole *plant* woolly and clammy. *Empal.* woolly at the baſe, a little diſtended on the

under ſide, ſmooth within. *Bloſs. tube* white, with the middle deep purple; *border* pale yellowiſh brown, beautifully veined with purple. *Threads* woolly, unequal in length. *Tips* deep purple, of 2 cells. *Duſt* white. *Shaft* of a fine purple. *Summit* white. WITH.

Villages, road ſides, and amongſt rubbiſh, not uncommon.

B. LINN. ST.—A. HUDS. June.

The ſeeds, the leaves, and the roots, taken internally, are all poiſonous; and many well atteſted inſtances of their bad effects are recorded. Madneſs, convulſions, and death, are the general conſequence. WITH.—I have often eaten the ſeeds of this plant with impunity. Dr. SMITH.—In a ſmaller doſe they occaſion giddineſs and ſtupor. It is ſaid that the leaves ſcattered about a houſe will drive away mice. The Edinburgh College order the expreſſed juice of the plant to be evaporated to an extract; and perhaps in this ſtate it may be advantageouſly joined with opium, where the effects of that medicine are deſirable, and coſtiveneſs is to be avoided. There is no doubt of its being an uſeful medicine under proper management. The doſe is from half a ſcruple to half a dram.

Goats are not fond of it. Horſes, Cows, Sheep, and Swine refuſe it. LINN.——Sheep ſometimes eat it when young. Mr. BALLARD.—*Chryſomela Hyoſcyami*, and the *Cimex Hyoſcyami*, are found upon it.

266. ATʼROPA. Dwale.

EMPAL. *Cup* 1 leaf; permanent; with 5 diviſions; bulging. *Segments* pointed.

BLOSS. 1 *petal*; bell-ſhaped. *Tube* very ſhort. *Border* diſtended; egg-ſhaped; longer than the cup. *Mouth* ſmall; with 5 clefts; open. *Segments* nearly equal.

CHIVES. *Threads* 5; awl-ſhaped; from the baſe of, and as long as the bloſſom; approaching at the baſe, but bowed outwards, and diverging towards the top. *Tips* rather thick; riſing.

POINT. *Seed-bud* half egg-ſhaped. *Shaft* thread-ſhaped; inclining; as long as the chives. *Summit* knobbed; tranſverſely oblong; riſing.

S. VESS. *Berry* of 2 cells; globular; ſitting upon the cup, which enlarges. *Receptacle* fleſhy; kidney-ſhaped; convex on both ſides.

SEEDS. Numerous; kidney-ſhaped.

Eſs.

Ess. Char. *Blosſ. bell-ſhaped. Chives diſtant. Berry globular, 2-celled.*

ATʹROPA *Belladonʹna.* Stem herbaceous. Leaves *deadly* egg-ſhaped; entire.—

Ludw. 128.—*Jacq. auſtr.* iv. 309.—*Fl. dan.* 758.—*Sheldr.* 101.—*Mill.* 62.—*Cluſ.* ii. 86. 1, *repr. in Dod.* 456. 1, *Lob. obſ.* 134. 2, *Ger. em.* 340, *and cop. in Park.* 346. 6, *Ger.* 269, *and H. ox.* xiii. 3. 4.—*Blackw.* 564.—*Matth.* 1073.—*J. B.* iii. 611. 1.—*Fuchſ.* 689, *cop. in J. B. ib.* 2.—*ib.* 3.—*Trag.* 301.

Stem zigzag. *Leaves* not evidently hairy. *Empal. ſegments,* 2 ſmaller than the reſt, not evidently bulging. *Blosſ.* ribbed. *Threads* with white hairs at the baſe. *Tips* white. *Summit* green. *Seeds* rough, dotted. *Berry,* firſt green, then red, and at length black. With.—Bloſſoms dark purple.

Deadly, or ſleepy Nightſhade. Dwayberries.

Hedges, amongſt limeſtone and rubbiſh. [St. Faith's, Newton, near Norwich, and in Herts, frequent. Mr. Woodw.—Dudley Caſtle, With. St.—Yard of Lautony Abbey, near Glouceſter. Mr. Ballard.—Hardwicke Park, Derbyſhire. St.]

P. June.—Aug.—Fruit ripe from Aug. to Oct. St.

The whole plant is poiſonous; and children, allured by the beautiful appearance of the berries, have too often experienced their fatal effects. Buchanan, the Scotch Hiſtorian, gives an account of the deſtruction of the army of Sweno, when he invaded Scotland, by the juice of theſe berries being mixt with the drink, which the Scots, by their truce, engaged to ſupply them with. The Danes became ſo intoxicated, that the Scots fell upon them in their ſleep, and killed the greateſt part of them; ſo that there were ſcarcely men enough left to carry off their King. Whatever credit is due to this ſtory, there is no doubt but thoſe who eat the berries are attacked with ſtupor or delirium, and become variouſly convulſed, and that death is the certain conſequence, if not prevented by timely and plentiful vomiting, ſo as to evacuare the poiſon. With.—Miller recommends drinking a large glaſsful of warm vinegar, and I am inclined to accede to the propriety of this remedy, or rather to recommend the ſwallowing plentifully of repeated draughts of a tea ſpoonful of ſpirits of hartſhorn, taken in a large glaſs of brandy and water, as theſe narcotics frequently diminiſh the irritability of the ſtomach, ſo far as to render it inſenſible to the operation of vomits. St.—Tumours of the breaſts, even of the cancerous kind, are ſaid to have been reſolved by a topical application of the freſh leaves. Dr. Graham, in the *Med. Commmunicat. vol.* i. *p.* 419, ſays, he found great benefit from a poul-

a poultice made of the roots, boiled in milk, and applied to hard ill-conditioned tumours and ulcers; and relates a deplorable caſe, in which this poultice effected a perfect cure. The powdered root has been given in doſes of 10 or more grains every other night, as a preventative after the bite of a mad dog. *Lond. Med. Journ. vol.* iii. *p.* 199. There is no doubt but their external application may be productive of good effects in ſeveral caſes, but the following inſtance ſhews us that their application is dangerous when the ſkin is broken:

A lady, who had a ſmall ulcer a little below one of her eyes, which was ſuppoſed to be of a cancerous nature, put a ſmall bit of the green leaf upon it. In the morning the uvea of that eye was ſo affected that the pupil would not contract, even in the brighteſt light; whilſt the other eye retained its uſual powers. The leaf being removed, the eye was gradually reſtored to its former ſtate. This could not be an accidental effect, for it was repeated three ſeparate times, and the ſame circumſtances attended each application. *Ray. hiſt.* 680.—In the Phil. Tranſ. vol. 50. p. 77, there is a well atteſted caſe of a woman cured of a cancer in her breaſt by taking a tea-cup full of an infuſion of the dried leaves every morning. The complaint became worſe at firſt, but afterwards the ſymptoms abated, and in 6 months ſhe was perfectly well. The infuſion was made by pouring 10 tea-cups full of water upon 20 grains of the dried leaves, letting it ſtand all night in a warm place. It hath ſince been tried in our hoſpitals, with the effect of mitigating the ſymptoms, but hardly ever perfecting a cure. Mr. Gattaker gives the preference to the *Solanum nigrum* in theſe caſes, as he found that to increaſe the ſecretions, and produce ſimilar good effects, without affecting the nervous ſyſtem ſo diſagreeably as this generally does. *See his Treatiſe on the Nightſhade.*—The juice of the ripe berries ſtains paper of a beautiful and durable purple. WITH.

268. SOLA'NUM. Nightſhade.

EMPAL. *Cup* 1 leaf; permanent; with 5 ſhallow clefts; ſharp; upright.

BLOSS. 1 petal; wheel-ſhaped. *Tube* very ſhort. *Border* large; plaited; with 5 ſhallow clefts; turned back and flat.

CHIVES. *Threads* 5; awl-ſhaped; very ſmall. *Tips* oblong; approaching ſo as to touch; with 2 open pores at the end.

POINT. *Seed-bud* roundiſh. *Shaft* ſimple; longer than the chives. *Summit* blunt.

S. VESS. *Berry* roundiſh, gloſſy; with a hollow dot at the end; and 2 cells. *Receptacle* convex on both ſides; fleſhy.

SEEDS. Several, roundiſh, diſperſed among the pulp.

ESS. CHAR. *Bloſs. wheel-ſhaped. Tips almoſt uniting, opening at the point by 2 pores. Berry 2-celled.*

SOLA'NUM *Dulcama'ra*. Stem without prickles, *woody* ſomewhat ſhrubby, zigzag. Upper-leaves halberd-ſhaped. Bunches tuft-like.—

Ludw. 58.—*Curt.* i. 1.—*Fl. dan.* 607.—*Blackw.* 34.—*Dod.* 402. 2, *repr. in Lob. obſ.* 136. 4, *Ger. em.* 350, *and cop. in Park.* 350.—*Ger.* 279. 1.—*Trag.* 816.—*Matth.* 1281, *cop. in J. B.* ii. 109. 2.

Stems twining. *Leaves* egg-ſpear-ſhaped; the upper ſometimes, not always halberd-ſhaped. *Bloſs.* deeply divided; *ſegments* ſpear-ſhaped, with 2 green ſpots at the baſe of each. *Tips* on the 1ſt opening of the bloſſom readily ſeparable, but afterwards growing dryer, they ſooner tear than be disjoined. *Berry*, the hollow not very conſpicuous. WITH.——Bloſs. purple, and *berries* ſcarlet. CURT.—*Bloſs.* ſometimes fleſh-coloured.

Bitter-ſweet.

Moiſt brakes, hedges, and ſides of ditches. P. June. July.

β. Leaves hairy. HUDS. *ſea*

Sea coaſt. RAY. and HUDS.

3. Bloſs white. HUDS. *whiteflower'd*

Boerhaave ſays it is a medicine far ſuperior to China and Sarſaparilla as a ſweetner and reſtorative. Linnæus ſays an infuſion of the young twigs is an admirable medicine in acute rheumatiſms, inflammations, fevers, and ſuppreſſion of the lochia. Dr. Hill ſays he has found it very efficacious in the aſthma. Doctor Hallenberg

Hallenberg adviſes it in iſchiatic and rheumatic pains, jaundice, ſcurvy, and lues venerea. He directs a pint of boiling water to be poured upon 2 drams of the ſtalks ſliced and dried, after ſtanding half an hour, it muſt be boiled 15 minutes. The doſe 2 tea-cups full or more, morning and evening. The ſtalks may be gathered early in the ſpring, or at the end of autumn. *Med. Comm. vol.* 3. *p.* 15.—The root has the ſmell of the potatoe. Mr. BEDDOES.

Sheep and Goats eat it. Horſes, Cows, and Swine refuſe it.

garden SOLA'NUM *ni'grum*. Stem without prickles, herbaceous. Leaves egg-ſhaped, toothed, angular. Bunches nodding, pointing 2 ways.—

Ludw. 172.—*Curt.* ii. 16.*—*Fl. dan.* 460.—*Sheldr.* 106.—*Blackw.* 107.—*Dod.* 454. 1, *repr. in Lob. obſ.* 133. 2, *Ger. em.* 339. 1, *and cop. in Park.* 346. 1, *and H. ox.* α. xiii. 1. *row* 1. 1.—*Matth.* 1069.—*Ger.* 268. 1.—*Fuchſ.* 686, *cop. in J. B.* iii. 6. 608.—*Trag.* 303.

Stem angular, roughiſh, branching from the baſe. *Leaves* running down the leaf-ſtalk. *Fruit-ſtalks* from the ſides of the ſtem and branches, without any leaf at the baſe. POLLICH. ST.—— Ariſing from the middle of the joint. CURT. ST.—*Bloſs.* white. *Berries* black.

Common Nightſhade.

Amongſt rubbiſh, and on dunghills, A. June.—Oct.

From 1 to 3 grains of the leaves infuſed in boiling water, and taken at bed-time, occaſions a copious perſpiration; increaſes the ſecretion by the kidneys, and generally purges more or leſs the following day. Theſe properties, judiciouſly applied, render it capable of doing eſſential ſervice in ſeveral diſeaſes, as may be ſeen in Mr. Gattaker's Treatiſe on the Solanum. But its effects on the nervous ſyſtem are ſo uncertain, and ſometimes ſo conſiderable, that it muſt ever be adminiſtered with the greateſt caution. The leaves externally applied abate inflammation, and aſſuage pain. The flowers ſmell like muſk,

Horſes, Cows, Goats, Sheep, and Swine refuſe it.

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* Correſponds with the "*S. nigrum virginicum* ε *Linn.* with the branches "angular, toothed; leaves ſerpentine at the edge, ſmooth;" and figured by *Dill. t.* 275, *f.* 256. Poſſibly indigenous to Great-Britain as well as America, or rather, perhaps, naturalized in the environs of the metropolis, from the refuſe of gardens. ST.

275. CHIRO'NIA. Centory.

(Centaurium minus. Tourn. 48. St.)

Empal. *Cup* 1 leaf, with 5 diviſions, permanent; *little leaves* oblong, upright, pointed.

Bloss. 1 *petal*; equal. *Tube* narrower. *Border* with 5 diviſions, expanding; *ſegments* egg-ſhaped, equal.

Chives. *Threads* 5; broad; ſhort; growing from the top of the tube. *Tips* oblong; upright; large; approaching; ſpirally twiſted when their duſt is ſhed.

Point. *Seed-bud* egg-ſhaped. *Shaft* thread-ſhaped, a little longer than the chives, declining. *Summit* knobbed, riſing up.

S. Vess. Egg-ſhaped; 2-celled.

Seeds. Numerous; ſmall.

Ess. Char. *Bloſs. wheel-ſhaped, (rather funnel or ſalver-ſhaped; ſee generic deſcription.* St.) *Point. declining. Chives inſerted into the tube of the bloſſom. Tips at laſt ſpiral. Seed-veſſel of* 2 *cells, (of* 1, *ſee below.* St.)

Obs. Linn. in his *fl. lapp. p.* 62. gives us reaſons for uniting the *Centaurium minus* of Tourn. to the *Gentiana*; but the ſubſequent eſtabliſhment of the Genera *Chironia* and *Chlora*, the individuals of which Tourn. had referred to his *Centaurium minus*, may be regarded as a tacit recantation of that opinion. *Chironia* and *Chlora* agree in the ſtructure of their fruit, but differ in that of the empalement. St.

CHIRO'NIA *Centau'rium*. Curt. Mr. Woodw. St. Herbaceous. Leaves oblong ſpear-ſhapped ſegments of the empalement awl-ſhaped, ſhorter than the tube of the bloſſom. St. * *common*

Curt. iv. 42.—*Fl. dan.* 617. *Walc.*—*Sheldr.* 82.—*Fuchs.* 387, *cop. in J. B.* iii. 353. 2.—*Matth.* 655, *the cloſed bloſſoms excellent, the expanded too blunt.*—*Dod.* 336, *repr. in Lob. obſ.* 218, *Ger. em.* 547. 1; *and cop. in Park.* 272. 1.—*Blackw.* 452.—*Trag.* 140.—*Ger.* 437.—*H. ox.* v. 26, *row* 1. 5.

Bloſs. with ſometimes only four cleſts, and ſegments pointed. Huds.—*Stem* from four inches to a foot, and in a ſpecimen on the ſea coaſt, ¾ inches high, often branching out ſome way above

* Herbacea, foliis lanceolato-oblongis, calycinis laciniis ſubulatis tubo corollæ brevioribus. St.

above the root; branches upright, ſimple; and ſometimes branching all the way to the top. *Flower-Leaves* ſtrap-ſhaped. *Flowers* in a kind of rundle, ſolitary, almoſt ſitting, one at each diviſion of the rundle. *Bloſs.* ſhrivelling, ſalver-ſhaped when fully expanded; *tube* 1-3d longer than the empalement, ſlightly coloured; *border* generally cloſed, except in clear fair weather, plaited at the baſe, the fiſſures being keeled on the outſide, and the ſegments on the inſide. *Chives* ſhorter than the bloſſom; *threads* awl-ſhaped; *tips* egg-oblong, upright, and after they have ſhed their duſt ſtrap-ſhaped, and twiſted ſpirally from right to left. *Seed-bud* green, ſmooth, with a longitudinal furrow on each ſide. *Shaft* as ſhort again as the threads, cloven half way down. *Summits* 2, on ſhort pedicles, nearly orbicular, greeniſh-yellow. *Caps.* oblong, round, marked with a furrow on each ſide; of 2 valves, readily ſeparating into 2 halves, but of only one cell, the edges of the valves being turned inwards, but not ſo far as to meet, as in Chlora. *Seeds* roundiſh. Compare the above deſcription with the *Chironia*. How exactly do they correſpond! or rather they ſeem to be the ſame. The *Chironia* indeed is deſcribed with a capſule of 2 cells. Linnæus however appears to have examined only dried ſpecimens, and in one ſpecies at leaſt, the *Chironia fruteſcens*, there is alſo only *one* cell, which induces me to ſuſpect that in the other ſpecies it muſt be the valves being rolled inwards, that has induced Linnæus to deſcribe them as having *two*. ST. Notes, Oct. 1775, and Ap. 1777.—The declining *Summit*, and twiſted *Tips*, correſpond with the Genus Chironia. Mr. WOODWARD.—*Stem* with 4 or 6 edges. *Root-Leaves* wedge-ſhaped; *ſtem-leaves* oppoſite, ſitting, ſpear-ſhaped, ſmooth. Empal. adhering to the tube of the bloſs. *Bloſs.* funnel-ſhaped; *tube* cylindrical, ſkinny, yellowiſh, longer than the empal. adhering to the ſeed-bud; *border* pink-coloured, with 5 ſpear-ſhaped ſegments, lapping over each other. *Threads* white, fixed to the top of the tube. *Tips* yellow, twiſting into a ſpiral after ſhedding their duſt. *Shaft* cylindrical, cloven at the top, and diviſible without much force all the way down. *Summits* 2, ſhaped like a horſe-ſhoe, yellowiſh green. WITH.

Leſſor Centory.—Barren paſtures. A. June.—Aug.

Extremely bitter. It is the baſis of the famous Portland Powder, which prevents fits of the gout, when taken in a large quantity, and a long time together; but brings on hardneſs of the liver, palſy, and apoplexy. A tincture of the leaves, and the upper part of the root, is a good medicine in weak ſtomachs and cachectic habits. A decoction of the whole plant deſtroys lice, and cures the itch.—Cows are not fond of it. LINN. and in ſheep paſtures it is frequently left untouched. ST.

β LINN.

β LINN. Stem very ſhort, and very much branched. GER. *prov.* ST.

Vaill. 6 1. *a more characteriſtic repreſentation of the ſpecies than any of the above.*

3. Bloſſoms white. RAY. ST. *Centaurium minus flore albo. J. B.* iii. 353.

Nigh Cartmal medicinal well, Lancaſh. RAY.—[And Upper Battenhall, near Worceſter. ST.]

284 RHAM'NUS. Buckthorn.

EMPAL. *Cup* none; except the bloſſom be conſidered as ſuch.

BLOSS. 1 *petal*; funnel-ſhaped; cloſed at the baſe. rough outwardly, but coloured within. *Tube* cylindrical; turban-ſhaped. *Border* expanding; divided; ſharp; 5 *Scales*, 1 at the baſe of each diviſion of the bloſſom, approaching inwards.

CHIVES. *Threads* as many as the ſegments of the bloſſom; awl-ſhaped; growing upon the bloſſom under the ſcales. *Tips* ſmall.

POINT. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; as long as the chives. *Summit* blunt; divided into fewer ſegments than the bloſſom.

S. VESS. *Berry* roundiſh, naked, divided into fewer cells than the bloſſom has ſegments.

SEEDS. Solitary; roundiſh; bulging on one ſide, compreſſed on the other.

ESS. CHAR. *Empal. tubular, with ſcales fencing the chives. Bloſs.* 0. *Fruit a berry.*

RHAM'NUS *Cathar'ticus*. Thorns terminating. Flowers cloven into 4. Chives and Pointal on different plants. Leaves egg-ſhaped. Stem upright. *purging*

Fl. dan. 850.—*Blackw.* 135.—*Matth.* 158.—*Dod.* 756, *repr. in Ger. em.* 1337. 2.—*Park.* 243. 1 *at the bottom.*—*Cluſ.* i. 111, *repr. in Lob. obſ.* 599. 1, *Ger. em.* 1337. 1, *and cop. in Park.* 243. 1.

Summit cloven into 4. *Berry* 4 ſeeded. LINN.—*Chives* 4. *Bloſſoms* pale green. *Berries* black.

[Woods and hedges near Norwich. Mr. CROWE.—Side of a brook near Hanley-Caſt. Worceſterſhire. Mr. BALLARD.—Near Worceſter. ST.] Apr. May.

A purgative ſyrup prepared from the berries is kept in the ſhops. About an ounce of is it a moderate doſe; but it generally occaſions ſo much ſickneſs and griping that it is falling into diſuſe.—The fleſh of birds that feed upon the berries is ſaid to be purgative.—The juice of the unripe berries is of the colour of ſaffron, and is uſed for ſtaining maps or paper. Theſe are ſold under the name of French Berries.—The juice of the ripe berries mixed with alum, is the ſap green of the painters; but if they are gathered late in the autumn the juice is purple.—The bark affords a beautiful yellow dye.

Goats, Sheep, and Horſes eat it. Cows refuſe it.

Alder RHAM'NUS *Fran'gula*. Without thorns. Chives and one pointal in the ſame empal. Leaves very entire.—*Ludw.* 82.—*Blackw.* 152.—*Fl. dan.* 278.—*Matth.* 1271.—*Ger.* 1286.—*Lob. obſ.* 594. 2, *cop. in Park.* 240.—*Dod.* 784. 1. *repr. in Ger. em.* 1470.—*J. B.* i. 560. 2.—*Trag.* 981.—*Lob. obſ.* 594. 1.

Bloſs. with 5 clefts. *Summit* notched. *Berry* with 4 ſeeds. The inner bark is yellow; the outer ſea-green, and the middle bark red as blood. LINN.—*Berry* with 3 cells. SCOP. ST.

Black berry-bearing Alder.

Woods and wet hedges. [Woods, Suffolk. Mr. WOODW.—Wood at Smethwick, near Birmingham. ST.] S. Apr. May.

From a quarter to half an ounce of the inner bark, boiled in ſmall beer, is a ſharp purge. In dropſies, or conſtipations of the bowels of cattle, it is a very certain purgative.—The berries gathered before they are ripe, dye wool green. The bark dyes yellow, and with preparations of iron, black.

Charcoal prepared from the wood is preferred by the makers of gunpowder.—The flowers are particularly grateful to bees. Goats devour the leaves voraciouſly, and Sheep will eat them.—The *Papilio Rhamni*, and *Argus*, live upon both the ſpecies.

291. EVON'YMUS. Spindletree.

EMPAL. *Cup* 1 leaf, with 5 diviſions; flat. *Segments* roundiſh; concave.

BLOSS. *Petals* 5; egg-ſhaped; flat; expanding; longer than the cup.

CHIVES. *Threads* 5; awl-ſhaped; upright; ſhorter than the bloſſom; ſtanding upon the ſeed-bud, as on a receptacle. *Tips* double.

POINT. *Seed-bud* tapering to a point. *Shaft* ſhort; ſimple. *Summit* blunt.

S. VESS. *Capſule* ſucculent; coloured; with 5 ſides; 5 angles; 5 cells; and 5 valves.

SEED. Solitary; egg-ſhaped; incloſed in a berry-like ſeed-coat.

ESS. CHAR. *Bloſs.* 5-*petaled. Capſule coloured; with* 5 *corners,* 5 *cells, and* 5 *valves. Seeds (as if) veiled.*

OBS. In ſome plants there are only 4 petals, &c.

EVON'YMUS *europæ'us.* Flowers moſtly conſiſting of 4 parts. Leaves ſitting.— *common*

Trag. 983.—*Ger.* 1284. 1.—*Dod.* 783, *repr. in Lob. obſ.* 591. 2, *Ger. em.* 1468. 1, *and cop. in Park.* 241. 1.—*J. B.* 1. 6. 201. —*(Cluſ.* i. 57, *repr. in Ger. em. ib.* 3, *and Ger.* 1285, *is E. verrucoſ. of Jacq.)*

In its primary flower it accords with the genera to which it is naturally allied. LINN.—Leaves egg-ſpear-ſhaped, oppoſite, on leaf-ſtalks. *Fruit-ſtalks* from the boſom of the leaves, and ſupporting 1 or 2 pair of flowers. *Empal. ſegments* reflected. *Petals* greeniſh white, fleſhy, lopped at the baſe. *Threads* fixed in holes in the receptacle. *Tips* browniſh yellow. *Seed-bud, ſhaft,* and *ſummit* of one uniform green fleſhy ſubſtance. WITH.—*Fruit* angular, purpliſh; ſometimes white.

Spindle Tree. Prick Wood. Prick Timber Tree. Gatteridge Tree. Louſe Berry.—Woods and hedges. S. Ap. May.

The berries vomit and purge violently. They are fatal to Sheep. Powdered, and ſprinkled upon the hair, they deſtroy lice. If the wood is cut when the plant is in bloſſom, it is tough, and not eaſily broken; and in that ſtate is uſed by watch-makers, for cleaning watches, and to make ſkewers and tooth-picks.

Cows, Goats, and Sheep eat it. Horſes refuſe it.

Phalæna Evonymella lives upon it.

301. RI'BES. Currant.

EMPAL. *Cup* 1 leaf, with 5 ſhallow clefts; diſtended; permanent. *Segments* oblong, concave, coloured, reflected.

BLOSS. *Petals* 5; ſmall; blunt; upright; growing to the edge of the cup.

CHIVES. *Threads* 5; awl-ſhaped, upright; ſtanding on the cup. *Tips* fixed ſide-ways; compreſſed; opening at the edges.

POINT. *Seed-bud* beneath, roundiſh. *Shaft* cloven. *Summits* blunt.

S. VESS. *Berry* globular, of 1 cell; dimpled. *Receptacles* 2, longitudinal, lateral, oppoſite.

SEEDS. Several; roundiſh; ſomewhat compreſſed.

ESS. CHAR. *Petals* 5, *and like the chives inſerted into the empalement. Shaft cloven. Berry beneath, many-ſeeded.*

red RI'BES *ru'brum*. Without prickles. Bunches ſmooth, pendant. Flowers flattiſh.—

Ludw. 92.—*Sheldr.* 91. 1, 2, 3, *and* 5.—*Walc.*—*Blackw.* 285. 1. 24.—*Trag.* 995.—*Matth.* 168.—*Cluſ.* i. 120. 1, *repr. in Dod.* 749. 2, *Lob. obſ.* 615. 2, *and Ger. em.* 1593. 1.—*J. B.* ii. 97.

Petals cloven. *Shaft* divided into 2; ſegments bent back. LEERS. —*Bloſs.* greeniſh white. *Berries* red.

Currants.—Woods in the northern counties. S. May.

The fruit is univerſally acceptacle, either as nature preſents it, or made into jelly. The juice is a moſt agreeable acid in punch. If equal weights of picked currants and pure ſugar are put over the fire, the liquor that ſeparates ſpontaneouſly is a moſt agreeable jelly.—Cows, Goats, and Sheep eat the leaves. Horſes are not fond of them. LINN.—A horſe refuſed it. ST.

This plant is very apt to be infeſted by the *Aphis Ribes*, and then the green leaves become red, pitted, and puckered.

β. *Sweet Currants.*—*Ribes vulgaris fructu dulci.* RAY *ſyn.* 456. Woods in Yorkſhire and Leiceſterſhire.

γ. *Small Currants.*—*Ribes fructu parvo.* RAY *ſyn.* 456. Wimbleton Park, Surry; and many places in Lancaſhire.

mountain RI'BES *alpi'num*. Without prickles. Bunches upright. Floral-leaves longer than the flowers.—

Gunn. ii. 2. 1 *and* 2.—*Jacq. auſtr.* i. 47.—*J. B.* ii. 98.

Leaves

Leaves ſet on both ſides with minute yellow globules. *Empal.* 5-ſided; *ſegments* longer than the petals. *Chives* ſhorter than the petals. *Pointal* as tall as the cup. WITH.

Sweet Mountain Currants.

Woods and hedges in Yorkſh. [About Bradford. Mr. WOOD.] S. May.

The fruit has a flat ſweetiſh taſte, and is only agreeable to children. The wood being hard and tough makes good teeth for rakes.

Cows, Goats, Sheep, and Horſes eat it.

RI'BES *ni'grum*. Without prickles. Bunches hairy. Flowers oblong.— *black*

Ludw. 91.—*Fl. dan.* 556.—*Walc.*—*Sheldr.* 91. 7, *fruit.*—*Blackw.* 285. 6, *fruit.*—*Dod.* 749, *repr. in Ger. em.* 1593, *and cop. in J. B.* ii. 99. 1, *and Park.* 1562. 2.—*Park. ib.* 3.

Buds glandular. *Floral-leaves* woolly, and as long as the little fruit-ſtalks. *Flowers* woolly. *Leaf-ſtalks* a little woolly, and beſet with glands. LINN.—*Leaves* ſprinkled with glands underneath. *Glands* globular, yellow, obvious to the naked eye. They appear to be the ſource of its very ſtrong, and to ſome perſons not unpleaſing ſcent. ST.

Squinancy Berries.

Wet hedges and banks of rivers. [Alder Swamps, Norfolk. Mr. WOODWARD.] S. May.

The berries have a very peculiar flavor which many people diſlike; but their juice is frequently boiled down into an extract, with the addition of a ſmall proportion of ſugar: in this ſtate it is called Rob; and is much uſed in ſore throats, but chiefly in thoſe of the inflammatory kind. Some people put them into brandy, for the ſame purpoſe that other people uſe black cherries. The tender leaves tinge common ſpirits, ſo as to reſemble brandy. An infuſion of the young roots is uſeful in fevers of the eruptive kind; and in the dyſenteric fevers of cattle.

Goats and Horſes eat the leaves. LINN.—A Horſe refuſed it. ST.—All the ſpecies are eaten by the *Phalæna groſſularia*.

RI'BES *groſſula'ria*. Branches prickly. Fringe of the leaf-ſtalks hairy. Berries hairy.— *rough berried*

Walc.

Flower-ſcales 2, with ſometimes a 3d within, oppoſite, embracing the fruit-ſtalk; the edges of the outer one lapping over thoſe of the inner. ST.

Feaberry in Cheſhire, Lancaſhire, and Yorkſhire. Hedges. WALC.—And on old buildings and church towers. ST. S. Apr.

Gooſeberry RI'BES *Uva-criſpa*. Branches prickly. Berries ſmooth. Fruit-ſtalks with a flower-ſcale of 1 leaf.—

Schmied. 1.—*Blackw.* 277.—*Fuchſ.* 187, *cop. in Trag.* 977.—*Matth.* 167, *cop. in J. B.* i. 6. 47.—*Lonic.* i. 43. 1.—*Dod.* 748, *repr. in Lob. ic.* ii. 206. 1, *obſ.* 617. 2, *Ger. em.* 1324, *and cop. in Park.* 1560. 1.—*(Fl. dan.* 546, *ſhould ſeem from the hairy berries to be R. groſſularia.)*

Buds woolly. *Empalement* bent back. *Bunch* none. *Fruit-ſtalk* woolly. *Flower-ſcale* egg-ſhaped, embracing the fruit-ſtalk, generally with 3 diviſions. *Flower* ſingle, pendant. *Leaf-ſtalks* fringed with knobbed hairs. A triple *thorn* beneath the buds. LINN.—*Flowers* whitiſh. *Flower-ſcale* very ſmall. MŒNCH.—Sometimes 1, and 2 others at its baſe. POLLICH. ST.—*Flowers* generally in pairs. *Flower-ſcale* concave, with a border divided into 2 lips. *Thorns*, their number uncertain, under 3. Hairineſs of the *berries* inconſtant, and ſometimes difficult to ſay whether ſmooth or hairy. SCHMIED. who appears to conſider this and *R. groſſularia* merely as varieties of one ſpecies. I muſt own I have not been able to obſerve any eſſential marks of difference between them, except the hairineſs and ſmoothneſs of the berries, and Parkinſon aſſures us that the ſeeds of his *hairy or prickly green gooſeberry* produced plants bearing ſmooth berries, with few or no hairs upon them. In our *ſmooth-berried gooſeberry* I have found 2 and 3 flower-ſcales as in the *rough-berried gooſeberry*. ST.

Woods and hedges. Parker's Piece, Girton, Shelford, Ditton, Harſton Church Yard, and Triplow, Cambridgeſhire. RELHAN. S. Apr. May.

304. HED'ERA. Ivy.

EMPAL. *Fence* of the ſimple rundle very ſmall; with many teeth. *Cup* very ſmall, with 5 teeth, binding round the ſeed-bud.

BLOSS. *Petals* 5; oblong; expanding; bent inwards at the points.

CHIVES. *Threads* 5; awl-ſhaped; upright; as long as the bloſſom. *Tips* fixed ſide-ways; forked at the baſe.

POINT. *Seed-bud* turban-ſhaped; bound round by the *cup*. *Shaft* ſimple; very ſhort. *Summit* ſimple.

S. VESS. *Berry* globular; with 1 cell.

SEEDS. 5; large; bulging on 1 ſide, angular on the other.

ESS. CHAR. *Petals* 5, *oblong*. *Berry* 5-*ſeeded, bound round by the empalement.*

HED'ERA

HED'ERA *He'lix.* Leaves, ſome egg-ſhaped, and others lobed.— *common*

Curt. i. 8.—*Sheldr.* 103.—*Blackw.* 188.—*Trag.* 801.—*Ger.* 708. 1 *and* 2 β.—*Fuchſ.* 722, *and* 723 β, *cop. in J. B.* ii. α. 111. 1 *and* 2 β.—*Dod.* 413. 1 *and* 2 β, *repr. in Lob. obſ.* 336. 2, *and* 337. 1 β, *and Ger. em.* 857. 1 *and* 2 β; *and cop. in Park.* 678. 1 *and* 679. 4. β.—*Matth.* 624 *and* 625. β.

When it trails on the ground its *branches* are ſmall and weak, and its leaves with 3 lobes. CURT.——In which ſtate it does not produce fruit, and has been called *Barren or Creeping Ivy.* To the figures of it in this ſtage of its growth the letter β is ſubjoined. ST. —But when it climbs up walls or trees it grows much ſtronger, and the leaf changes to egg-ſhaped. CURT. ST.—At leaſt when arrived to its full growth, in which ſtate it is called *Climbing* or *Berried Ivy.* ST.—*Leaves* gloſſy. *Bloſſoms* greeniſh white. *Berries* black.—Woods, hedges, and old buildings. S. Oct.

The roots are uſed by leather-cutters to whet their knives upon. Its ever-green leaves adorn our walls and cover the naked trunks of trees. Apricots and peaches covered with ivy during the month of February, have been obſerved to bear fruit plentifully. *Phil. Tranſ.* No. 475.—The leaves have a naſeous taſte. Haller ſays they are given in Germany as a ſpecific in the atrophy of children. Common people apply them to iſſues. The berries have a little acidity. They purge and vomit. WITH.—In warm climates a reſinous juice exſudes from the ſtalks.—Horſes and Sheep eat it. Goats and Cows refuſe it. LINN.—Sheep are fond of it. ST.—And in ſevere weather it is ſtripped off the trees as food. Mr. HOLLEY.

313. ILLEC'EBRUM. Knotgraſs. *(Pet.)*

EMPAL. *Cup* 5 leaves and 5 angles; *leaves* coloured; tapering; diſtant at the points; permanent.

BLOSS. None.

CHIVES. *Threads* 5; hair-like; within the cup. *Tips* ſimple.

POINT. *Seed-bud* egg-ſhaped; ſharp; ending in a ſhort cloven *ſhaft. Summit* ſimple; blunt.

S. VESS. *Capſule* roundiſh; tapering at each end; with 5 valves, and 1 cell; covered by the cup.

SEED. Single; very large; ſomewhat round, but ſharp at each end.

ESS. CHAR. *Empal. of* 5 *leaves, griſtly. Bloſs.* 0. *Summit ſimple. Capſule of* 5 *valves, and* 1 *ſeed.*

whorled ILLEC'EBRUM *verticilla'tum.* Flowers in whorls, naked. Stems trailing. LINN.—*The floral-leaves are ſo much ſhorter than the flowers, that the latter appear naked.* ST.

Fl. dan. 335.—*Vaill.* 15. 7.—*J. B.* iii. 378. 2, *cop. in Pet.* 10. 7. —*Ger. em.* 563, *cop. in Park.* 1333, *and ill cop. in Ger.* 449. 1.

Leaves oval, keeled, fleſhy, Mr. WOODWARD.—*Upper whorls* crowded near together, by no means ſo far aſunder as in Fl. dan. Mr. WOODW. ST.—*Empal. leaves nearly cylindrical,* tough, white without, ſlightly keeled underneath, flatted, and greeniſh within from a little below the point; points tapering into ſhort hairs. When cloſed they exactly reſemble the ſeed-veſſels of the *Sedum. Floral-leaves* egg-ſhaped, ſemi-tranſparent, whitiſh, at the baſe of the flowers, performing the office of a *fence.* ST.—*Bloſſoms* white.

Marſhes, and wet paſtures in Cornwall. P. July.

314. GLAU'X. Saltwort.

EMPAL. None, unleſs you conſider the bloſſom as ſuch.
BLOSS. *Petal* ſingle; upright; bell-ſhaped; permanent; with 5 blunt *ſegments,* rolled back.
CHIVES. *Threads* 5; awl-ſhaped; upright; as long as the bloſſom. *Tips* roundiſh.
POINT. *Seed-bud* egg-ſhaped. *Shaft* thread-ſhaped; as long as the chives. *Summit* a knob.
S. VESS. *Capſule* globular; tapering; of 1 cell and 5 valves.
SEEDS. 5; roundiſh. *Receptacle* large; globular; with hollows where the ſeeds lie.

ESS. CHAR. *Empalement of* 1 *leaf. Bloſſom* 0. *Capſule of* 1 *cell,* 5 *valves, and* 5 *ſeeds.*

black GLAU'X *mariti'ma.*

Lob. obſ. 227, 2, *repr. in Ger. em.* 562, *and cop. in Park.* 1283. 2. —*Fl. dan.* 548.*—*Ger.* 448.

Leaves oval-oblong. LINN.—*Stems* trailing; jointed. *Leaves* ſitting. *Bloſs.* at the baſe of the leaves; purple; ſometimes greeniſh white; or white; or ſtriped.—*Flowers* ſitting, from the boſom of the leaves, from about the middle of the ſtem. LYONS.

Sea Milkwort. Black Saltwort.

Sea coaſt. [Norfolk coaſt. Mr. WOODW.—Between Marazion and Penzance. Mr. WATT.] P. July.

Cows eat it.

* Leaves too pointed, and ſtems too naked. Mr. WOODWARD.

315. THE'SIUM. Flaxweed. *(Park.)*

EMPAL. *Cup* 1 leaf; permanent; turban-ſhaped; with 5 ſhallow clefts. *Segments* half ſpear-ſhaped; upright; blunt.

BLOSS. None, unleſs you conſider the *cup* as ſuch, from its colour on the inſide.

CHIVES. *Threads* 5; awl-ſhaped; inſerted at the baſe of the ſegments of the cup; ſhorter than the cup. *Tips* roundiſh.

POINT. *Seed-bud* beneath; at the bottom of the cup. *Shaft* thread-ſhaped; as long as the chives. *Summit* rather thick and blunt.

S. VESS. None. The *cup* contains the ſeed in its bottom without opening.

SEED. Single; ſomewhat round; covered by the cloſing cup.

ESS. CHAR. *Empalement* 1 *leaf, into which the chives are inſerted. Seed* 1, *beneath.*

THE'SIUM *Linophyl'lum.* Panicle leafy. Leaves *mountain* ſtrap-ſhaped.—

Cluſ. i. 324. 1, *repr. in Ger. em.* 555, *and cop. in Park.* 459. 6, *Ger.* 442. 7, *Pet.* 9. 5, *and J. B.* iii. 461. 3.—*H. ox.* xv. 1. 3.

Root woody. *Leaves* of a yelloviſh green. POLLICH. ST.—*Floral-leaves* on foot-ſtalks, cloven into 3; the middle ſegment long, pointing downwards; the 2 outer ſhort, pointing upwards. *Flower* ſitting in the diviſion. Mr. WOODWARD.—*Stems* numerous, branching above, and ſometimes trailing, probably from the firſt ſhoots having been eaten down. *Flowers* on fruit-ſtalks in bunches. *Fruit-ſtalks* about the length of the flowers. *Floral-leaves* 3, terminating the fruit-ſtalk, the lowermoſt the longeſt. ST.—*Bloſs.* white. *Baſtard Toadflax.*

Mountainous paſtures, particularly in a chalky ſoil.——[Near Bury, Suffolk. Mr. WOODWARD.] P. June. July.

OBS. Haller under *T. alpinum* deſcribes a *Theſium*, which ſeems, he ſays, to unite the *T. alpinum* and *Linophyllum*. *Stem* taller, and more upright than *T. alpinum*; but *leaves* ſtrap-ſhaped, ſoft, and flaccid. *Flowering-branches* about an inch long, ſomewhat branched, *ſometimes with only* 2 *flowers. Flower-leaves*, 2 ſmaller, the larger in full grown plants ſhorter than the flower. HALL. ST.—But in the the younger plants extending beyond the flower. HALL.—All the Engliſh ſpecimens which I have hitherto ſeen, ſeem to be this

plant of Haller's, which, from Linnæus's character of *leaves ſtrap-ſhaped*, ſhould ſeem alſo to be his *T. Linophyllum*, whereas thoſe of *Hall.* 1573, and *Cluſius's* figure are *truly ſpear-ſhaped*. *Leaves* nerveleſs, not with 3 ſtrings as in the *Theſium* of *Hall.* 1573, and *Scop.* 172. Cultivation may aſcertain its claim to be a ſpecies or variety. *See alſo Relhan at p.* 99.

[Chalk cliff between Freſh-water Bay and the Needles in the iſle of Wight. ST.]

322. VIN'CA. Periwinkle.

EMPAL. *Cup* with 5 diviſions; upright; ſharp; permanent.

BLOSS. 1 *petal*; ſalver-ſhaped. *Tube* longer than the cup; cylindrical in the lower part; wider above; marked with 5 lines, and 5 angles at the mouth. *Border* with 5 diviſions; horizontal; the ſegments connected with the top of the tube; broadeſt at the outward edge, and obliquely lopped.

CHIVES. *Threads* 5; very ſhort; firſt bent inwards, and then backwards. *Tips* membranaceous; blunt; upright, but bowed inwards; with the duſt at the margins.

POINT. *Seed-buds* 2; roundiſh; with 2 roundiſh bodies lying contiguous to them. *Shaft* common to both ſeed-buds; cylindrical; as long as the chives. *Summits* 2; the lower one round and flat; the upper ſummit a concave knob.

S. VESS. 2 *bags*; cylindrical; long; tapering; upright; of 1 valve, opening lengthways.

SEEDS. Numerous; oblong; cylindrical; furrowed.

ESS. CHAR. *Contorted. Bags* 2; *upright. Seeds naked.*

OBS. One of the NATURAL ORDER of the CONTORTED plants. The ſtructure of the flower of this genus, will help, in ſome meaſure, to explain to us that of *Aſclepias*.—The want of duſt, however, in the *Aſclepias*, diſtinguiſhes that genus from all thoſe comprehended under the great diviſion of perfect plants. ST.

leſſer VIN'CA *mi'nor*. Stems trailing. Leaves ſpear-egg-ſhaped. Flowers on leaf-ſtalks. LINN.——*Flowering-ſtem upright in the ſpring, but in autumn it bears flowers on the ſhoots of the year, which are trailing.* Mr. WOODWARD.

Curt.

Curt. iii. 29.—*Ludw.* 75.—*Sheldr.* 22, *except the bloſſom which is ill drawn; no ſeed-veſſel.*—*Blackw.* 59.—*Dod.* 405, *repr. in Lob. obſ.* 360. 1, *Ger. em.* 894. 1, *and cop. in Park.* 381. 1, *and J. B.* ii. 131.—*Matth.* 956.—*Walc.*—*Trag.* 394.—*Fuchſ.* 360, *bloſſom bad.*

Leaves blunter, ſmooth at the edge. *Fruit-ſtalks* curved. *Empal.* ſhort. LINN.—The ripe *ſeed-veſſel* I have never been able to diſcover. CURT.—The fruit ſeldom comes to maturity, and *Cæſalpin.* ſeems the only one that has obſerved it in that ſtate. It may, however, be eaſily obtained by planting the *V. major* in a pot, where the roots not having free room to extend themſelves, the juices are more copiouſly propelled towards the pointal, which then expands into well-formed ſeed-veſſels. TOURN.—This affords a very pleaſing confirmation of a general remark of Mr. Curtis's, on the frequent barrenneſs of plants which propagate themſelves by their roots. ST.—*Shaft* inverſely conical. *Upper ſummit* woolly. *Leaf-ſtalks* ſhort. *Flowering-ſtems* upright. *Bloſs.* blue. WITH.

Woods and hedges but rare, [Near Hampſtead. Earſham Wood, plentifully. Mr. WOODWARD.] P. May.

A Horſe refuſed it. ST.

VIN'CA *ma'jor.* Stems upright. Leaves egg-ſhaped. Flowers on fruit-ſtalks. LINN.—Leaves fringed at the edge. HALL. ST. *greater*

Curt. iv. 37.—*Tourn.* 45, *fructification with the ſeed-veſſel.*—*Walc.*—*Cluſ.* i, 121. 2, *repr. in Dod.* 406. 1, *Lob. obſ.* 360. 2, *Ger. em.* 894. 2, *& cop. in Park.* 381. 2.—*J. B.* ii. 132.—*Garid.* 81.

A variety of the *V. minor.* LINN.—Mr. Curtis has not deſcribed the fruit, neither have I ever ſeen it. ST.—*Empalement* as long as the tube of the bloſſom. *Bloſs. tube* woolly within, juſt above the tips. *Leaf-ſtalks* long. *Bloſs.* blue; with a bluſh of purple. WITH.

Woods and hedges. [A grove in Thorpe, by Norwich. Mr. WOODWARD]. P. May.

Bitter and ſlightly aſtringent. WITH.—A Horſe refuſed it. ST.

Order

Order II.

DIGYNIA; II. POINTALS.

336. HERNIA'RIA. Rupturewort.

EMPAL. *Cup* 1 leaf; with 5 diviſions; ſharp; expanding; coloured within; permanent.
BLOSS. None.
CHIVES. *Threads* 5; awl-ſhaped; ſmall; within the ſegments of the cup. *Tips* ſimple. There are 5 other threads without tips, alternating with the ſegments of the cup.
POINT. *Seed-bud* egg-ſhaped. *Shaft* hardly any. *Summits* 2; tapering; as long as the ſhaft.
S. VESS. *Capſule* ſmall; at the bottom of the cup; covered; ſcarcely opening.
SEED. Solitary; egg-ſhaped, but tapering; ſhining.
ESS. CHAR. *Empal. divided into* 5. *Bloſſom* 0. *Chives,* 5 *of them barren. Capſule* 1-*ſeeded.*

ſmooth HERNIA'RIA *gla'bra.* Smooth.
Fl. dan. 529.—*Trag.* 527.—*Matth.* 953.—*J. B.* iii. 378. 3.—*Ger.* 454.—*Dod.* 114, *repr. in Ger. em.* 569.—*Blackw.* 320.—*Pet.* 10. 9.—*Park.* 447. 9.
Floral-leaves white, fringed. Scop. Mr. WOODWARD. ST.—*Bloſs.* yellowiſh.
Gravelly ſoil. Lizard Point, Cornwall. HUDS. A. July.
A little ſaltiſh and aſtringent. It increaſes the ſecretions by the kidneys. The juice takes away ſpecks in the eye.
Cows, Sheep, and Horſes eat it. Goats and Swine refuſe it.
β. HUDS. *H. lenticulata,* which ſee.

hairy HERNIA'RIA *hirſu'ta.* Rough with hair.—*Sheldr.* 110.—*Pet.* 10. 10.—*J. B.* iii. 379. 1.—*H. ox.* v. 29.* *row* 1. 2. 6.
Scarcely more than a variety of *H. glabra.* LINN. ST.—*Floral-leaves* membranaceous, white, fringed. *Flowers* not more ſitting than thoſe of *H. glabra.* ST.—*Bloſs.* greeniſh yellow.
Gravelly ſoil. Colney Hatch, near Barnet. A. July. Aug.

ſea HERNIA'RIA *lenticula'ta.* Somewhat ſhrubby. Leaves oblong-egg-ſhaped, hairy.—

Fluk.

Pluk. 53. 3, *cop. in Pet.* 10. 6.—*Buxb.* i. 28. 2, *but I am doubtful whether I have ever ſeen the plant. My ſpecimens, which I gathered in the King's garden, Paris, are not diſtinguiſhable from the H. hirſuta. Mr. Hudſon makes it a variety of H. glabra, though Linnæus characteriſes it as having hairy leaves.*

Bloſs. greeniſh white.

Sea ſhore. P. Aug.

337. CHENOPO'DIUM. Gooſefoot.

EMPAL. *Cup* 5 leaves; concave; permanent; *leaves* egg-ſhaped; concave; membranaceous at the edges.

BLOSS. None.

CHIVES. *Threads* 5; awl-ſhaped; as long as the leaves of the cup, and ſtanding oppoſite to them. *Tips* round-iſh; double.

POINT. *Seed-bud* round and flat. *Shaft* ſhort; divided. *Summits* blunt.

S. VESS. None. The *cup* cloſes upon the ſeed; has 5 ſides; 5 compreſſed angles; falling off (with the ſeed.)

SEED. Single; round; depreſſed.

ESS. CHAR. *Empal. of* 5 *leaves, and* 5 *angles. Bloſs,* 0. *Seed* 1, *lentil-ſhaped.*

OBS. In ſome ſpecies the *ſhaft* is divided into 3.

* *Leaves angular.*

CHENOPO'DIUM *Bonus-Henri'cus.* Leaves triangular-arrow-ſhaped, very entire. Spikes compound, leafleſs, from the boſom of the leaves.— *Mercury*

Curt. iii. 31.—*Ludw.* 185, *but flowering ſpike bent down by force.*—*Fuchſ.* 463, *cop. in J. B.* ii. 965. 2.—*Fl. dan.* 579.—*Ger.* 259.—*Trag.* 317.—*Matth.* 598, *cop. in Dod.* 651, *which repr. in Lob. obſ.* 129. 2, *Ger. em.* 329, *and cop. in Park.* 1225. 6, *H. ox.* v. 30. *row* 2. *n.* 1. *figure* 3*d*, *and Pet.* 7. 12.—*Blackw.* 311.—*Munt.* 191.

Little ſpikes alternate; ſitting. *Flowers* congregated; ſitting. LINN.—*Leaves* waved at the edge, underneath ſprinkled with a ſoapy mealineſs. *Bloſs.* greeniſh white. HALL.—*Lower little ſpikes* on ſhort fruit-ſtalks riſing from the boſom of the flower-leaves.

Common Engliſh Mercury. All-good. Good Henry. Good King Henry. Wild Spinage.—Amongſt rubbiſh, on road ſides, and walls, [and ſometimes in paſtures. ST.] P. May.

Cultivated

Cultivated as ſpinage by the poor people at Boſton, in Lincolnſhire. CURT.—The young ſhoots peeled and boiled, may be eaten as aſparagus, which they reſemble in flavour. They are gently laxative. The leaves are often boiled in broth. The roots are given to Sheep that have a cough.

Goats and Sheep are not fond of it. Cows, Horſes, and Swine refuſe it.

upright CHENOPO'DIUM *urbicum*. Leaves triangular, ſomewhat toothed. Bunches crowded, quite ſtraight, lying cloſe to the ſtem, very long.—

Fet. 8. 8.—*(Buxb. hall.* 1, *at p.* 69, *I have not ſeen, but is referred by Schreb. to C. murale.)*

Poſſibly a variety of *C. rubrum*. There ſeems no diſtinction but in the bunches. *Empal.* ſmaller. Mr. WOODW.—*Bloſs.* pale green. *Stem* upright, ſimple. *Leaves* alternate, on leaf-ſtalks, toothed, pointed at each end, ſmooth, marked with 1 or 2 teeth. *Bunches* from the boſom of the leaves, and terminating. LYONS.

Dunghills, and amongſt rubbiſh. A. Aug. Sept.

Goats and Sheep eat it. Horſes and Cows refuſe it.

red CHENOPO'DIUM *rubrum*. Leaves heart-triangular, bluntiſh, toothed.* Bunches upright, compound, ſomewhat leafy, ſhorter than the ſtem.—

Fuchſ. 653, *cop. in J. B.* ii. 975. 2, *Dod.* 616. 1, *Ger. em.* 328. 2.—*Matth.* 462, *cop. in Lob. obſ.* 128. 1, *Ger. em.* 328. 1, *and cop. in Park.* 749. 8, *and H. ox.* v. 31. *row* 2. 2.—*Pet.* 8. 6.

When full grown, red, and ſpreading. Dies down on the firſt froſt. *Stems* drooping, and lying cloſe to the ground. *Leaves* thick, ſhining. *Spikes* with ſitting balls of flowers, interſperſed with ſtrap-ſhaped leaves. LINN.—Is not this and the *C. urbicum* the ſame plant? HUDS.——*Bunches* ſhort, cloſe, branched. Mr. WOODWARD.—*Stem* furrowed. *Leaves* alternate, upright, running down into leaf-ſtalks, *nearly three-ſquare*, pointed, ſharply toothed, ſmooth above. *Leaf-ſtalks* as long as the leaves. *Bunches* from the boſom of the leaves, ſhorter than the ſtem, but the whole panicle longer than the ſtem. LYONS.—*Stem* pale green, ſmooth, ſlightly ſcored with lines of a deeper green. *Branches* from

* The plant which accords with the figures referred to by Linnæus I would characteriſe thus: Leaves trowel-ſhaped, toothed, indented; teeth tapering. Bunches upright, compound, leafy, ſhorter than the leaves. *(Foliis deltoideis, dentato ſinuatis, dentibus acuminatis; racemis erectis, compoſitis, foliaceis, folio brevioribus,* ST.)

from the boſom of the leaves, upright. *Leaves* with their leaf-ſtalks as long or longer than the branches that riſe from them; no ſhining ſpangles upon them or the *empalement*, ſo as to give the plant a white appearance, but when held againſt a ſtrong light an infinite number of ſhining particles appear. *Bunches* ſitting in the boſom of the upper leaves. WITH.

Gooſefoot. Sowbane.

Dunghills, rubbiſh, and cultivated ground. A. Aug.

CHENOPO'DIUM *mura'le*. Leaves egg-ſhaped, ſhining, toothed, pointed. Bunches branching, naked.— *wall*

Pet. 8. 5.—*Ger.* 256. 2, *cop. in J. B.* ii. 976. 1.—*(Ger. em.* 328. 1, *ſeems rather to be C. rubrum, and J. B.* ii. 975. 2, *referred to by Linnæus, is a copy of Fuchſ.* 653, *which is C. rubrum.)*

Of a green colour. *Stems* upright, open, thick, ſmooth on the upper ſide. *Leaves* thickiſh, gloſſy, ſmooth, very like thoſe of *C. rubrum*, but more ſharply toothed. *Flowers* in broad-topped ſpikes as in *C. hybridum*, not in bunches as in *C. rubrum*. Fruit in a ſort of panicle. LINN.

Dunghills, and rubbiſh. A. July. Aug.

Cows eat it; but it is ſaid to be poiſonous to Swine.

β. HUDS. Procumbent blite with a thick, ſhining, waved leaf. RAY. *p.* 154. 6.

(Pet. 8. 5, *is referred to by Ray, but has an upright ſtem.)*

Bocking-ſtreet, Eſſex; and Jeſus Coll. Lane, Cambridge. RAY. A.

CHENOPO'DIUM *ſero'tinum*. Leaves trowel-ſhaped, indented, toothed, wrinkled, ſmooth, uniform. Bunches terminating.— *fig-leaved*

Curt. ii. 18, *named C. viride, at leaſt if we may depend upon its exact correſpondence with Pet.* 8. 3, *the figure referred to by Linnæus, Haller, and Hudſon.*

Stem of the height of a man, very much branched. *Leaves* pale green, reſembling thoſe of *C. album*, but broader. LINN.—*Leaves* oblong, narrow, with a deep ſinew on each ſide. BUDDLE in R. ſyn.—Greener than the *C. album*, though not without a degree of mealineſs. *Stem* of a bright red at the inſertion of the branches. *Leaves* longer than thoſe of *C. album*. *Empal.* not quite ſo much covered with little globules. *Seeds* reticulated with imprinted dots. CURT

Dunghills, and rubbiſh. A. Aug. Sept.

CHENOPO'DIUM *al'bum*. Leaves diamond-triangular, gnawed, entire behind; the uppermoſt oblong. Bunches upright.—*(Lower-leaves rhomboidal, betwixt toothed* *white*

and

and hollowed; upper oblong. Bunches branching, moſtly bare, (including C. viride as variety β. HUDS.)

Curt. ii. 16.—*Blackw.* 553.—*Fuchſ.* 119, *cop. in J. B.* ii. 972. 1, *and Dod.* 615. 2, *which repr. in Ger. em.* 326. 6.—*Ger.* 257. 4.—*Pet.* 8. 2.—*(Matth.* 461, *cop. in Lob. obſ.* 128. 1, *which repr. in Ger. em.* 326. 5, *and cop. in Park.* 748. 6, *is an Atriplex, as is evident from its ſeed.)*

Plant whitiſh when full grown. *Bunches* always branched, and, as it were, tuftlike, ſtraight, compoſed of cluſtered ſpikes. *Spikes* ſmall, egg-ſhaped, ſitting, alternate, crowded; compoſed of flowers ſet cloſe together. *Flower-leaves* ſtrap-ſhaped, very entire, ſitting, ſmall, 2 or 3 to each ſpike. LINN.—*Stem* ſhining, bluntly angular, ſtreaked with green, purple, and white. *Branches*, 2 together, eſpecially at the lower part of the ſtem. *Leaves* with 3 ſemi-tranſparent veins ſpringing from the baſe, ſprinkled, eſpecially on the under ſide, with white ſhining particles; the upper ſpear-ſhaped. *Empal.* ſpangled with minute glands; of 1 leaf, deeply divided. *Tips* yellow. *Seeds* black. WITH.

Atriplex ſylveſtris altera. C. B. pin. 119.—*(And not Atriplex ſylveſt. fol. ſinuato candicante C. B. ib. at leaſt if we may judge from the figures referred to.)*

Common Wild Orache.

Old dunghills, rubbiſh, and gardens. A. Aug.

Cows, Goats, and Sheep eat it. Horſes refuſe it. Swine are extremely fond of it. LINN.—Horſes ſometimes eat, and even appear fond of it. ST.—A black *Aphis* feeds upon it, and ſometimes deſtroys it. ST.

β. HUDS. *Chenopodium viride*, which ſee.

γ. HUDS. Leaves generally very entire, ſometimes toothed. RAY. *p.* 155. *n.* 12.

J. B. ii. 973. 2.

δ. HUDS. Leaves thick, blunt. RAY. *p.* 156. *n.* 13.

A. Aug. Sept.

green CHENOPO'DIUM *vir'ide*. Leaves diamond-ſhaped, toothed, indented. Bunches, branches ſometimes leafy.—

Vaill. 7. 1.—*Pet.* 8. 4.—*(J. B.* ii. 972, *is alſo referred to C. alb. and with more propriety.—Curt.* ii. 18, *appears to be C. ſerotin. in which the bottom of the indentures are rounded, whereas in the figures of Vaill. they are acute.)*

Stem upright, green; with purpliſh angles. *Leaves of the branches* ſpear-ſhaped, very entire, with only 1 or 2 teeth. *Bunches* thread-ſhaped, divided, long, bare. *Empal.* of the fruit with 5 ſharp angles, ſo nearly

nearly allied to the preceding as to render it doubtful whether it be a diſtinct ſpecies, or only a variety produced by difference of ſoil. LINN.

Kitchen Gardens. A.

Goats, Sheep, and Swine eat it.

CHENOPO'DIUM *hy'bridum*. Leaves heart-ſhaped, with angles tapering to a point. Bunches branching, leafleſs.— *maple-leaved*

Curt. iv. 42.—*Vaill.* 7. 2.—*Barr.* 540.—*Pet.* 8. 7.

Did it not originate from the ſeed-buds of the *C. viride*, impregnated by the duſt of the *Datura Stramonium?* LINN.

Has ſo many things in common with the *C. viride*, as to induce one to ſuſpect it to have originally proceeded from it, which receives confirmation from the ſtructure of its bunches; but may not one as ſoon expect a progeny from an oſtrich and a lion? Mr. WOODWARD.

Rubbiſh, kitchen gardens, and corn fields. Near Northfleet. A. Aug.

Cows and Sheep eat it. Horſes, Goats, and Swine refuſe it.

CHENOPO'DIUM *glau'cum*. Leaves egg-oblong, ſerpentine. Bunches naked, ſimple, cluſtered.— *oak-leaved*

J. B. ii. 973. 1.—*Pet.* 8. 1.

On rubbiſh. A. Aug.

Cows and Horſes eat it.

** *Leaves entire.*

CHENOPO'DIUM *Vulva'ria*. Leaves very entire, diamond-egg-ſhaped. Flowers congregated, from the boſom of the leaves.— *ſtinking*

Ger. 258.—*Dod.* 616. 2, *repr. in Lob. obſ.* 128. 4, *Ger. em.* 327, *and cop. in Park.* 749. 9, *and Pet.* 7. 11.—*Blackw.* 100, *leaves egg-ſhaped, and too pointed.*—*J. B.* ii. 975. 1, *ill cop. in H. ox.* v. 31. 6.

Whole *plant* mealy. *Stems* trailing, ſcored, branched. *Leaves* alternate, on leaf-ſtalks, pointed at each end, with 3 ribs, twice as long as the leaf-ſtalks. *Branches* terminating, naked. LYONS.

Stinking Orache.—Road ſides, old walls, and on rubbiſh. [At the foot of the Walls, Yarmouth, and at Cambridge. Mr. WOODW. —Oppoſite Shore-ditch Workhouſe. Mr. WHATELY.] A. Aug.

Scent rank, and fetid. It has got the reputation of being an anti-hyſteric.—Cows, Horſes, Goats, and Sheep eat it. Swine refuſe it.—The *Phalæna exſoleta* is found upon it.

Curt.

All-ſeed CHENOPO'DIUM *polyſper'mum*. Leaves very entire, egg-ſhaped. Stem trailing. Tufts forked, leaf-leſs, from the boſom of the leaves. LINN.—Empal. of the fruit open. CURT.—*Stem both upright and trailing*. REICH.—*The ſmall ſpear-ſhaped flower-leaves of the upper flowering-branches, at firſt ſight induce one to ſuppoſe the bunches of flowers to be leafy. Bunches when firſt in bloſſom egg-ſhaped or globular*. ST.

Curt. ii. 20.—*H. ox.* v. 30. *row* 3. 6.—*Dod.* 617. 2, *cop. in J. B.* ii. 967. 2, *and H. ox. ib.* 3.—*Ger.* 257. 3, *cop. in Pet.* 7. 10, *ſeed ripe.*—*Lob. obſ.* 129. 1, *repr. in Ger. em.* 325. 3, *and cop. in Park.* 754. 3.

Stalk angular. POLLICH. ST.—Four-cornered. CURT.—*Leaves* ſometimes in the more luxuriant plants with a large tooth on one, and ſometimes on both ſides. ST.

Upright Blite. All-ſeed.—Cultivated ground, and dunghills. [Generally in turnep fields. Mr. WOODWARD.] A. July. Aug.

Cows and Sheep eat it. Goats and Horſes refuſe it.

ſea CHENOPO'DIUM *marit'imum*. Leaves awl-ſhaped, ſemi-cylindrical.—

Fl. dan. 489.—*Dod.* 81. 2, *repr. in Ger. em.* 535. 3, *and cop. in Park.* 279. 2.—*Lob. ad.* 170. 1, *cop. in Pet.* 9. 1.—*(H. ox.* v. 33. 3, *cannot ſurely be the plant.)*

Leaves accurately ſemi-cylindrical. Mr. WOODWARD.——*Stem* furrowed. *Branches* alternate. *Flowers* ſolitary, in the boſom of the leaves. *Empal.* 1 leaf, divided. *Tips* yellow. *Shaft* ſingle. *Summits* 3, pink-coloured. *Seeds* gloſſy. WITH.

Small White Glaſswort. Small Glaſswort.

Sea ſhore. [Salt Marſhes. Mr. WOODWARD.] A. Aug.

An excellent pot-herb.—The *Phalæna Lubricipeda* feeds upon moſt of the ſpecies.

338. BE'TA. Beet.

EMPAL. *Cup* 5 leaves; concave; permanent; *leaves* oblong-egg-ſhaped; blunt.
BLOSS. None.
CHIVES. *Threads* 5; awl-ſhaped; as long as the leaves of the cup, and ſtanding oppoſite to them. *Tips* nearly round.
POINT. *Seed-bud* in a manner below the receptacle. *Shafts* 2; very ſhort; upright. *Summits* pointed.
S. VESS. *Capſule* in the bottom of the cup; of 1 cell; ſoon falling off.
SEED. Single; kidney-ſhaped; compreſſed; lying in the ſubſtance of the baſe of the cup.
ESS. CHAR. *Empalement* 5 *leaves. Bloſs.* 0. *Seed kidney-ſhaped, within the ſubſtance of the bottom of the empal.*

BE'TA *marit'ima.* Flowers in pairs.— *ſea*
No figure of it, but Ger. em. 318. 2, *is a pretty good repreſentation of it, as Mr. Lightfoot obſerves.*
Differs from *B. vulg.* in flowering the firſt year; in the leaves growing oblique or vertical; in the leaves of the cup being equal, and not toothed. LINN.
Sea coaſt, and about Nottingham. [Near Lynn. Mr. WOODW. —And Iſle of Wight. ST.] B. Huds. P. Ray. Aug.

339. SAL'SOLA. Kelpwort.

EMPAL. *Cup* 5 leaves; egg-ſhaped; concave; permanent.
BLOSS. None, unleſs you call the cup the bloſſom.
CHIVES. *Threads* 5; very ſhort; ſtanding upon the leaves of the cup.
POINT. *Seed-bud* globular. *Shaft* ſhort; with 2 or 3 diviſions. *Summits* bent back.
S. VESS. *Capſule* egg-ſhaped; of 1 cell; lapped up in the cup.
SEED. Single; very large; ſpiral like a ſnail ſhell.
ESS. CHAR. *Empalement* 5 *leaves. Bloſſom* 0. *Capſule* 1 *ſeed. Seed ſnail-like.*

SAL'SOLA *Ka'li.* Herbaceous, drooping. Leaves *prickly* awl-ſhaped, thorny, rough. Empalement bordered, from the boſom of the leaves.—

Fl. dan. 818. *a.*—*Dod.* 81. 1.—*H. ox.* v. 33. 11.—(*Lob. obſ.* 463. 1, *repr. in Ger. em.* 1117. 3, *and cop. in Park.* 1034, *and Pet.* 9. 2, *which is referred to by Ray and Hudſon.*—*Matth.* 1035, *cop. in Ger. em.* 960. 4; *and J. B.* iii. 706. 2, *ſeem to be S. Tragus.*)

Bloſſoms greeniſh.

Prickly Glaſswort.

Sea ſhore, frequent. Mr. WOODWARD. A. July. Aug.

Cows, Horſes, Goats, Sheep, and Swine refuſe it.

ſhrubby SAL'SOLA *frutico'ſa*. Shrubby, upright. Leaves thread-ſhaped, bluntiſh.—

Lob. adv. 163. 3, *cop. in J. B.* iii. 704. 2.—(*Lob. obſ.* 206. 2, *repr. in Ger. em.* 523. 4, *and cop. in H. ox.* v. 33. 10, *and a branch of it cop. in Park.* 731. 7, *is Reaumuria vermiculata.*)

Shrub Stone Crop, or Glaſswort.

(*Sedum minus fruticoſum. C. B. pin.* 284, *is Reaumuria vermiculata.*)

Sea ſhore. [Near Southwold, Suffolk. Mr. WOODWARD.] S. Aug.

345. UL'MUS. Elm.

EMPAL. *Cup* 1 leaf; turban-ſhaped; wrinkled; permanent. *Border* with 5 clefts; upright; coloured on the inſide.

BLOSS. None.

CHIVES. *Threads* 5; awl-ſhaped; twice as long as the cup. *Tips* with 4 furrows; upright; ſhort.

POINT. *Seed-bud* round and flat; upright. *Shafts* 2; reflected; ſhorter than the chives. *Summits* downy.

S. VESS. *Berry* oval; large; not pulpy; compreſſed and membranaceous.

SEED. Single; ſomewhat globular; but a little compreſſed.

ESS. CHAR. *Empalement with* 5 *clefts. Bloſſom* 0. *Berry juiceleſs, flatted, membranaceous.*

common UL'MUS *campeſ'tris*. Leaves doubly ſerrated, unequal at the baſe.—

Fl. dan. 632, *the double ſerratures of the leaves not expreſſed.*—*Nat. diſpl.* ii. 8. 2, *at p.* 63, *cop. in Nat. delin.* ii. 6. 2, *at p.* 65.—*Hunt. Evel.* 118.—*Park.* 1404. 1. 6.—*Matth.* 144, *cop. in Lob. obſ.* 607. 1, *which repr. in Ger. em.* 1480. 1, *and cop. in Park. ib. a. bliſters on the leaves, no fruit.*—*Ger.* 1297. 1.—*Trag.* 1087.

The

The *flowering-buds* are beneath the leaf-buds. *Flowers* in very ſhort broad-topped ſpikes. *Bark* of the trunk cracked and wrinkled.

Common Elm.

Hedges. Not found to the north of Stamford. RAY. EVEL. ST.—[Moſt plentiful in Worceſterſhire and Middleſex, which counties are beds of gravel and marle. ST.]

A decoction of the inner bark drank freely has been known to carry off the water in dropſies.—It cures the *Lepra ichthyoſis* of Sauvages. *Lettſom's Med. Mem.* § 3.—The bark dried and ground to powder, has been mixed with meal in Norway to make bread, in times of ſcarcity.—The flowers have a violet ſmell.—The wood being hard and tough is uſed to make axle-trees, mill-wheels, keels of boats, chairs, and coffins.—The tree is beautiful, and well adapted to make ſhady walks, as it does not deſtroy the graſs, and its leaves are acceptable to Cows, Horſes, Goats, Sheep, and Swine; for this purpoſe it ſhould be grafted upon the *U. glabra*, and then the roots will not ſend out ſuckers, which the common elm is very apt to do, and give a great deal of trouble to keep the ground clear of them.—It loves an open ſituation, and a black or clayey ſoil. It bears to be tranſplanted.—*Papilio polychloros*, and *C. album; Phalæna lubricipeda, Pavonia betularia* and *vellica; Cimex ulmi* and *ſtriatus; Cicada ulmi; Aphis ulmi*, feed upon it. The latter generally curl up the leaves, ſo as to make them a ſecure ſhelter againſt the weather. LINN.—Silk-worms will devour the tender leaves with great avidity. *Tranſ. of Soc. of Arts* ii. 157.

β. Differs from α only in the ſmallneſs of all its parts. RAY. *Nat. diſpl.* ii. 27. 1, *at p.* 287.—*Dod.* 837, *repr. in Ger. em.* 1480. 2, *and cop. in Park.* 1404. 4, *bliſters on the leaves from inſects, no fruit.* *leſſer*

Between Chriſt Church and Limmington. RAY.——[In Lord Dudley's Woods, at Himley, Staffordſhire. WITH.]

Narrow-leaved Elm.

δ. Leaves ſmooth. GER. EM. RAY. &c.

Ger. 1297. 2, *cop. in. Ger. em.* 1481. 4, *which cop. in Park.* 1403. 3.

Witch Elm.—Road beyond Dartford, and near Rumford. RAY. and GER.—[Two trees in hedge rows between Stourbridge and Affcote. ST.]

UL'MUS *monta'na*. Leaves oblong-egg-ſhaped, doubly ſerrated, unequal at the baſe. Bark ſmooth. HUDS. *ed.* I.—*That of the trunk rough.* ST. *Wych Haſel*

Nat. diſpl. ii. 27. 2, *at p.* 287.—*Ger. em.* 1481. 3; *cop. in Park.* 1404. 2.—*(Ger. em.* 1481. 4, *appears to me rather a variety of U. campeſtris.)*

The *bark* will peel from the boughs for many feet without breaking. The *boughs* ſpread themſelves wider, and hang more down than thoſe of the *U. campeſtris*. *Leaves* and *ſeeds* much larger. JOHNSON *in Ger. em.* ST.—*Trunk* ſoon dividing into long wide-ſpreading winged branches; when at its full growth ſeldom riſes to above one third of the height of the *U. campeſtris*. It flowers when even under 30 feet high, while the *U. campeſtris* ſeldom flowers till it has gained a much greater age and height. *Branches* very brittle. *Clefts* of the *empalement* 5, 6, and in one inſtance 4 and 9. *Chives* 5 and 6. *Summits* 3. I am clearly of opinion that it is a diſtinct ſpecies. ST.

Ulmus montana. C. B. *pin*.

Wych Haſel. *Broad-leaved Elm*.

Shady lanes, and outſkirts of woods. RAY. ST.—It is certainly a native. LIGHTFOOT.—In Scotland, and the north of England, it ſeems more peculiarly to prevail, from the ſcarcity of the *U. campeſtris*, which laſt Linnæus notes as growing near the villages of Europe, whereas this ſpecies is found in woods and brakes, as well as hedge rows. ST. S. March. ST.

351. SWER'TIA. Felwort.

EMPAL. *Cup* with 5 diviſions; flat; permanent. *Segments* ſpear-ſhaped.

BLOSS. 1 *petal*. *Tube* none. *Border* flat; with 5 diviſions. *Segments* ſpear-ſhaped; larger than the cup; connected by the claws. *Honey-cups* 10, conſiſting of 2 hollow dots in the inner ſide of the baſe of each ſegment, and encompaſſed with ſmall upright briſtles.

CHIVES. *Threads* 5; awl-ſhaped; not quite upright; ſhorter than the bloſſom. *Tips* fixed ſide-ways to the threads.

POINT. *Seed-bud* oblong; egg-ſhaped. *Shaft* none. *Summits* 2; ſimple.

S. VESS. *Capſule* cylindrical; tapering at each end; with 1 cell, and 2 valves.

SEEDS. Numerous; ſmall.

ESS. CHAR. *Bloſs. wheel-ſhaped. Honey-cup pores at the baſe of the ſegments of the bloſs. Capſ. of* 1 *cell, and* 2 *valves.*

marſh SWER'TIA *peren'nis*. Bloſſom with 5 clefts. Root-leaves oval.—

Jacq.

Jacq. auſtr. iii. 243.—*Cluſ.* 1. 316. 2, *repr. in Ger. em.* 433. 5, *and cop. in Barr.* 91, *and H. ox.* xii. 5. 11.
Marſh Gentian.
Mountainous places in Wales. P. Aug.

352. GENTIA'NA. Gentian.

EMPAL. *Cup* with 5 diviſions; ſharp; permanent. *Segments* oblong.
BLOSS. 1 *petal*; tubular below; tube cloſe; above cloven into 5; flat; ſhrivelling; and variouſly ſhaped.
CHIVES. *Threads* 5; awl-ſhaped; ſhorter than the bloſſom. *Tips* ſimple.
POINT. *Seed-bud* oblong; cylindrical; as long as the chives. *Shafts* none. *Summits* 2; egg-ſhaped.
S. VESS. *Capſule* oblong; cylindrical; tapering; ſlightly cloven at the end; of 1 cell, and 2 valves.
SEEDS. Numerous; ſmall. *Receptacles* 2; each growing lengthways to a valve.
ESS. CHAR. *Bloſſom of* 1 *petal. Capſule* 2 *valves*; 1 *cell. Receptacles* 2; *longitudinal.*

OBS. The figure of the fruit is conſtant; but the flowers vary in different ſpecies, both as to the number and ſhape of the parts. In one ſpecies the throat of the bloſſom is open, in another it is cloſed with ſoft hairs. In ſome, the ſegments of the bloſſom are fringed; in others, the border is bell-ſhaped, upright, and plaited. Some have a ſtarry appearance, with ſmall ſegments betwixt the larger; others are funnel-ſhaped, &c. LINN.

GENTIA'NA *Pneumonan'the*. Bloſſoms with 5 clefts; bell-ſhaped; oppoſite; on fruit-ſtalks. Leaves ſtrap-ſhaped.— *marſh*

Fl. dan. 269.—*Gmel.* iv. 51. *A.*—*Matth.* 646.—*Cluſ.* i. 313. 2, *repr. in Lob. obſ.* 166. 2, *Ger. em.* 438, *and cop. in Park.* 406. 1, *and H. ox.* xii. 5. 12.—*Ger.* 355.—*Barr.* 51. 1, *and according to Hall. Barr.* 52. 1 *and* 2.—*J. B.* iii. 524. 1.
Bloſſoms blue.
Calathian Violet.
Moiſt paſtures. [Stratton Heath, Norfolk. Mr. CROWE.]

GENTIA'NA *Centau'rium*. Bloſſom with 5 clefts, funnel-ſhaped. Stem forked. Pointal ſimple.— *Centory*

Chironia Centaurium, which ſee.

autumnal GENTIA'NA *Amarel'la.* Bloſſom with 5 clefts, ſalver-ſhaped; mouth bearded. LINN.—Segments of the empalement equal. HALL. Mr. WOODW.—*Bloſſom with ſometimes* 4 *and* 3 *clefts.* RETZ. &c.

Fl. dan. 328.—*Walc.*—*Cluſ.* i. 316. 1, *repr. in Ger. em.* 437, *and cop. in Park.* 406. 3.—*H. ox.* xii. 5. 3.—*Ger.* 354. 1.—*Barr.* 510. 1.—*J. B.* iii. 526. 2 *and* 3.—*(J. B. ib.* 1, *improved in Barr.* 510. 2, *ſeems to be a different plant.*—*Barr.* 97. 2, *is G. campeſtris.)*

So nearly allied to *G. campeſtris*, that it is ſcarcely diſtinguiſhable, except by the empalement. LINN.—*Lower-flowers* often with 4 diviſions. RETZ. Mr. WOODW. Mr. WOOD. ST.—In plants which had been bitten down and ſhot up afreſh. Mr. WOODW. ST.—And the *empalement* ſometimes with only 3. ST.—*Stem* ſomewhat angular. *Lower-branches* not longer than the leaves; the *upper* in general much ſhorter. *Leaves* ſpear-ſhaped. *Flowers* in bunches, terminating the branches. *Empalement, ſegments* awl-ſhaped. Mr. WOODWARD.—*Bloſs.* blue.

Fellwort.—Dry paſtures. [Boughton Heath, Huntingdonſhire; and Dunſtable Hills. Mr. WOODWARD.—About Gordale, *below* the waterfall. Mr. Wood.] A. July. Aug.

Sheep eat it. Horſes refuſe it.

2. Bloſſoms with 4 clefts. Mr. WOODWARD. ST. *Walc. named G. campeſtris.*

field GENTIA'NA *campeſ'tris.* Bloſſom with 4 clefts; mouth bearded. LINN.—Empal. of 4 leaves, alternately larger. REICH. Mr. WOODW. Mr. WOOD. ST. WITH.

Fl. dan. 367, *(but larger than it grows with us. Mr. Woodward.)*—*Barr.* 97. 2.—*H. ox.* xii. 5. *row* 3. 9.—*(Walc. G. campeſtris is G. amarella, variety* 2.*)*

Empalement 1 leaf, but divided more than half way down; the 2 outer oppoſite ſegments flat, upright, twice as broad as thoſe between them. *Chives* 4. Very nearly allied to the *G. amarella.* LINN.—*Stem* nearly ſquare, branched; branches longer than the leaves. *Leaves* ſhorter, and not ſo ſharp-pointed as in *G. amarella. Flowers* larger and more ſcattered. *Empal. leaves* diſtinct, or merely adhering at the baſe; the 2 *outer* egg-ſpear-ſhaped; the *inner* ſpear-ſhaped, ſomewhat membranaceous, not more than ¼th the breadth of the outer. *Bloſs. ſegments* not ſo much expanded as in *G. amarella.* Mr. WOODWARD.—*Stem* ſcored. *Leaves* ſpear-egg-ſhaped, oppoſite, half embracing the ſtem, with 3 ribs; the *upper* pairs diſtant; *lower* ones near together, and thoſe near the root lying on the ground. *Flowers* ſolitary. *Fruit-ſtalks* ſtiff, ſlender, from the

boſom

boſom of the leaves, parallel to the ſtem. *Empal. leaves* ſpear-ſhaped, finely ſerrated at the edge with white teeth. *Bloſs.* tubular, longer than the cup, greeniſh, and ribbed, but purple at the mouth; *ſegments* broad, ſpear-ſhaped, pointed, lined within with ſcales ending in long whitiſh taper glandular hairs. *Chives* covered by the hairy ſcales which cloſe the mouth of the tube. *Threads* greeniſh, fixed to the bloſſom. *Tips* brown. *Duſt* yellowiſh green, egg-ſhaped. *Seed-bud* above. *Summits* ſpear-ſhaped, flat, lying cloſe to each other. *Seeds* in 4 longitudinal rows. *Stem* upright. *Bloſs.* blue; terminating. *Root-leaves* ſpear-ſhaped, lying on the ground. WITH.

Mountainous paſtures. About Kendal. RAY and Mr. WOODW. —Llanberys, Wales, and Perian Round, Cornwall. HUDS.—[Sea coaſt, Cheſhire. Stratton Heath, Norfolk. Mr. CROWE. —Among the high rocks *above* the waterfall in Gordale. Mr. WOOD.]—A. Apr.—June. RAY.—Aug. HUDS.—And in a garden in October. WITH.

Poor people ſometimes uſe it inſtead of hops.

GENTIA'NA *filifor'mis.* Bloſſoms with 4 clefts, *leaſt* not bearded. Stem thread-ſhaped; forked.—

Fl. dan. 324.—*Giſek.* 64.—*Vaill.* 6. 3.

Bloſs. yellow, generally cloſed; funnel-ſhaped; on long fruit-ſtalks. *Chives* 4.

Marſh Centory.—Marſhes in Cornwall. Near St. Ives. A. July.

354. ERYNG'IUM. Eryngo.

EMPAL. *Common Receptacle* conical; florets ſitting; ſeparated by chaff. *Fence* of the receptacle flat; of many leaves; longer than the florets. *Cup* 5 leaves; upright; ſharp; longer than the bloſſom; ſitting on the ſeed-bud.

BLOSS. *General*; uniform; roundiſh. *Florets* all fertile. *Individuals* of 5 oblong petals; with the points bent inwards towards the baſe; and contracted by a line running lengthways.

CHIVES. *Threads* 5; hair-like; ſtraight; longer than the florets. *Tips* oblong.

POINT. *Seed-bud* beneath; rough with hair. *Shafts* 2; thread-ſhaped; ſtraight; as long as the chives. *Summits* ſimple.

S. VESS. *Fruit* egg-ſhaped; diviſible into 2 parts.

SEEDS. Oblong; cylindrical.

ESS. CHAR. *Flowers in heads. Receptacle chaffy.*

OBS. In ſome ſpecies the ſeeds fall out of the ſeed-veſſel; in others they continue incloſed within it.

ſea ERYNG'IUM *marit'imum.* Root-leaves roundiſh, plaited, thorny. Flowering heads on fruit-ſtalks. Chaff with 3 points.—

Fl. dan. 875.—*Blackw.* 297 1 *and* 11.—*Matth.* 680.—*Cluſ.* ii. 159. 2, *repr. in Dod.* 730. 1, *Lob. obſ.* 490. 1, *Ger. em.* 1162. 1, *and cop. in Pet.* 999. 1, *Park.* 986. 1, *and H. ox.* vii. 36. 6.—*J. B.* iii. *a.* 86. 2.

Root-leaves, and *lower-ſtem-leaves* with 3 clefts, on fruit-ſtalks; the *upper* embracing the ſtem. *Leaf-ſtalks* embracing the ſtem. Mr. WOODWARD. ST.—*Bloſs.* whitiſh, or blue.

Sea Holly.—Sea ſhore. [At Yarmouth. Mr. WOODW.—And on the ſands at Hayle, Portawen, Portreath, and Penzance, Cornwall. Mr. WATT.] P. July. Aug.

The leaves are ſweetiſh, with a light aromatic warmth and pungency. The roots are ſuppoſed to have the ſame aphrodiſiac virtues as the Orchis tribe. They are kept in the ſhops, candied. The young flowering ſhoots eaten like aſparagus are very grateful and nouriſhing.

common ERYNG'IUM *campeſ'tre.* Root-leaves embracing the ſtem, winged, ſpear-ſhaped.—

Jacq. auſtr. ii. 155.—*Fuchſ.* 296, *cop. in J. B.* iii. *a.* 85.—*Matth.* 679.—*Fl. dan.* 554.—*Blackw.* 297. 2, *a head.*—*Ger.* 999. 2.—*Cluſ.* ii. 157. 2, *repr. in Dod.* 730. 2, *Lob. obſ.* 490. 2, *Ger. em.* 1162. 2, *and cop. in Park.* 986. 2, *and H. ox.* vii. 36. *row* 2. *n.* 1. *f.* 2.—*Trag.* 871.—*(Blackw.* 297. 1, *is E. maritimum.)*

Fences ſpear-ſhaped, longer than the head. GOUAN.—*Root-leaves* on leaf-ſtalks; *upper-leaves* embracing the ſtem. POLLICH. Mr. WOODWARD. ST.—*Lower-ſtem-leaves* on leaf-ſtalks. *Root-leaves* and *lower-ſtem-leaves* doubly and trebly divided into winged clefts. *Leaf-ſtalks* long, ſheathing the ſtem at the baſe. Mr. WOODWARD. ST.—*Stem* long, trailing, bearing numerous heads of flowers. Mr. WOODWARD.—*Fence-leaves* awl-ſhaped. MATTUSCH. ST.—Very entire, and toothed in the ſame plant. *Lower-leaves* winged, the baſe of each pair of wings running down the leaf-ſtalk almoſt cloſe to the inſertion of the pair below it; *wings* with winged clefts; *clefts* cut, and toothed with thorny teeth. ST.—*Petals* blue; ſometimes white, or yellowiſh.

Eryngium. Blackw. a Trew n. 297. ST.

Paſtures

Paſtures on the ſea coaſt, and at Brookhall, not far from Daventry, in Northamptonſhire. P. July. Aug.

355. HYDROCOT'YLE. Pennywort.

Rundle ſimple.
EMPAL. *Fence* frequently of 4 leaves; ſmall. *Cup* hardly perceptible.
BLOSS. *General*; uniform in figure, but not in ſituation. *Florets* all fertile. *Individuals*, of 5 petals; egg-ſhaped; ſharp; entire; expanding.
CHIVES. *Threads* 5; awl-ſhaped; ſhorter than the bloſs. *Tips* very ſmall.
POINT. *Seed-bud* beneath; upright; compreſſed; round; the fruit-ſtalks fixed to its centre. *Shafts* 2; awl-ſhaped; very ſhort. *Summits* ſimple.
S. VESS. None. *Fruit* compreſſed; round; diviſible croſs-wiſe into 2 parts.
SEEDS. 2; compreſſed; in the ſhape of a half-moon.
ESS. CHAR. *Rundle ſimple. Fence of 4 leaves. Petals entire. Seeds ſemi-circular; flatted.*

HYDROCOT'YLE *vulga'ris*. Leaves target-ſhaped. *marſh* Rundles of 5 flowers.—

Fl. dan. 90.—*Dod.* 133. 1, *repr. in Lob. obſ.* 209. 4, *Ger. em.* 529. 5, *and cop. in Ger.* 424. 3, *Park.* 1214, *and Pet.* 6. 12.

Rundle ſimple, proliferous from the centre. *Shafts* diſtant. LINN. —*Leaves* ſcolloped. *Fruit-ſtalks* ſlender, much ſhorter than the leaf-ſtalks. Mr. WOODWARD. WITH.—*Fruit-ſtalks* naked. Mr. WOODWARD.—*Stems* creeping. *Leaves* circular, ſmooth. *Leaf-ſtalks* ſmooth, cylindrical. *Fruit-ſtalks* from the baſe of the leaf-ſtalks. *Rundles*, 2 on a fruit-ſtalk, 1 ſpringing out of the other, each containing from 4 to 6 flowers. *Flowers* opening at different times. *Pedicles* fixed to the baſe of the ſeed-bud. *Fence* and *petals* reddiſh white. *Tips* yellow. WITH.

Pennywort. White Rot.—Marſhy grounds. P. May. June.

The farmers ſuppoſe it occaſions the rot in Sheep. (See *Pinguicula vulgaris.*)

356. SANI-

356. SANIC'ULA. Sanicle.

Rundle with very few ſpokes; generally 4. *Rundlets* with many ſpokes crowded into heads.

EMPAL. *General Fence* going half way round on the outer ſide. *Partial Fence* going quite round; ſhorter than the florets. *Cup* ſcarcely perceptible.

BLOSS. *General*; uniform. The *florets* in the centre barren. *Individuals*, petals 5; compreſſed; bent inwards ſo as to cloſe the flower.

CHIVES. *Threads* 5; ſimple; upright; twice as long as the petals. *Tips* roundiſh.

POINT. *Seed-bud* beneath; rough with ſtiff hairs. *Shafts* 2; awl-ſhaped; reflected. *Summits* ſharp.

S. VESS. None. *Fruit* egg-ſhaped; ſharp; rough; dividing into 2.

SEEDS. 2; convex and prickly on 1 ſide; flat on the other.

ESS. CHAR. *Rundles crowded, in a ſort of heads. Fruit rough. Flowers of the centre barren.*

OBS. I do not regard this and the *Hydrocotyle* as true umbelliferous or rundled plants, but rather as forming the connecting link between *Aſtrantia* in the order *Umbelliferæ*, and *Panax* and *Aralia* in the *Hederaceæ*. ST.

common SANIC'ULA *europæ'a*. Root-leaves ſimple. Florets all ſitting.—

Fl. dan. 283, *leaf and head of flowers.*—*Blackw.* 63.—*Walc.*—*Fuchſ.* 671, *cop. in Trag.* 509.—*Dod.* 140. 1, *repr. in Ger. em.* 948.—*Ger.* 801.—*Col. phytob.* 16.—*H. ox.* v. 34. *row* 3. 1.—*Lob. obſ.* 378. 2, *cop. in Park.* 532. 1.—*Matth.* 1019.

Stems cylindrical, ſcored. *Root-leaves* divided into 5 parts, ſhining underneath; *ſegments* jagged, and terminated by a little thorn. *Leaf-ſtalks* flatted and grooved on one ſide. *General fence* of 3 leaves; *leaves* divided into 3; *ſegments* jagged. *Rundle*, the outer ſpokes often ſub-dividing into 2 or 3, at the baſe of each of which there is a *general fence* of 2 leaves, each divided into 3, going all round. *Partial fence* of 7 to 12 equal, ſpear-ſhaped leaves. *Empal.* cup of 1 leaf, divided into 5 pointed ſegments; in the barren florets very evident; but not ſo in thoſe with chives and pointals, on account of an awl-ſhaped ſubſtance placed below it. *Petals* white, fleſhy. *Tips* oblong. *Shafts* before flowering upright, purple above. In the *barren florets* no pointal, but in its place a concave white gland filled with honey, ſimilar to what crowns the

ſeed-

ſeed-bud in the flowers with chives and pointals. *Leaves* dark green. WITH.

Woods and hedges. P. May. June.

A French proverb ſays, "He who is poſſeſſed of Bugle and Sanicle, may diſmiſs his ſurgeons;" but modern practice gives no countenance to ſuch an aſſertion. The leaves are ſlightly bitter, aromatic, and aſtringent.

Sheep eat it. Goats are not fond of it. Horſes refuſe it.

358. BUPLEU'RUM. Thorow-wax.

Rundle with fewer than 10 ſpokes. *Rundlets* with about 10 upright expanding ſpokes.

EMPAL. *General Fence* of many leaves. *Partial Fence* larger. *Leaves* 5; expanding; egg-ſhaped; ſharp. *Cup* not diſcernible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*; petals 5; very ſhort; entire; rolled inwards.

CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; reflected; ſmall. *Summits* very ſmall.

S. VESS. None. *Fruit* roundiſh; compreſſed; ſcored; diviſible into 2.

SEEDS. 2; oblong egg-ſhaped; convex and ſcored on one ſide; flat on the other.

ESS. CHAR. *Partial Fence the largeſt; of 5 leaves. Petals rolled in. Fruit roundiſh; flatted; ſcored.*

BUPLEU'RUM *rotundifo'lium*. No general fence. *common*
Leaves perforated.—

Ger. 430. 1.—*Matth.* 1156.—*Fuchſ.* 632, *cop. in Trag.* 482.—*Blackw.* 95.—*H. ox.* ix. 12. 1.—*Dod.* 104. 1, *repr. in Ger. em.* 536. 1, *and cop. in Park.* 580. 1.—*J. B.* iii. 6. 198. 1.—[*Moris. umb. t.* 8, *a good figure. Mr. Woodward.*]

Partial fence egg-ſhaped, ſharp-pointed. LINN.—*Lower-leaves* embracing the ſtem. POLLICH. Mr. WOODWARD.—*Partial fence* of 3 or 5 leaves; longer than the ſpokes. Mr. WOODW.—*Leaves* ſmooth, bluiſh green. *Petals* yellowiſh.

Cornfields. [Marham, Norfolk. Mr. CROWE.—Carlby, between Stamford and Bourn. Mr. WOODWARD.] A. July.

BUPLEU'RUM *tenuiſ'simum*. Rundles ſimple, alternate, of 5 leaves, and about 3 flowers.— *leaſt*

J. B.

J. B. iii. 6. 201. 2.—*H. ox.* ix. 12. *row* 3. 4.

Stem very much branched. *Branches* alternate. *General fence* of 3 ſhort leaves. *Partial fence* with ſhort briſtle-ſhaped leaves. *Rundles* at the baſe of the leaves. *Leaves* ſtrap-ſhaped; ſharp. *Petals* yellowiſh. LINN.—*General fence*, leaves awl-ſhaped, unequal; *partial* of 5 leaves, longer than the ſpokes. Mr. WOODWARD.

Bupleurum minimum. RAY. *ſyn.* 221.

Meadows and paſtures. [Salt ditches, near Lynn Regis. Dr. SMITH. Mr. PITCHFORD.—Maldon, Eſſex.] A. July. Aug.

359. ECHINOPH'ORA. Pricklenep.

Rundle of many ſpokes; the intermediate ones ſhorteſt. *Rundlets* of many florets; thoſe in the centre ſitting.

EMPAL. *General Fence* of ſeveral ſharp leaves. *Partial Fence* turban-ſhaped; of 1 leaf; with 6 clefts; ſharp; unequal. *Cup* very ſmall; with 5 teeth; permanent.

BLOSS. *General*; irregular in its ſhape and unequal. The *florets* which have only chives, barren. General florets fertile. *Individuals*, of 5 unequal petals; ſtanding open.

CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.

POINT. *Seed-bud* beneath; oblong; involved in the fence. *Shafts* 2; ſimple. *Summits* ſimple.

S. VESS. None; but inſtead thereof the fence grows hard and ſharp-pointed, and incloſes the ſeed.

SEED. Single; oblong-egg-ſhaped.

ESS. CHAR. *Lateral florets with only chives, the central one with chives and pointal. Seed* 1, *embedded in the partial fence.*

thorny ECHINOPH'ORA *ſpino'ſa.* Little-leaves awl-ſhaped, thorny, very entire.—

Matth. 490, *cop. in Ger.* 427.—*Dod.* 705. 2, *repr. in Lob. obſ.* 408. 2, *Ger. em.* 533. 2, *and cop. in Park.* 1286. 3.

Petals white; or reddiſh.

Thorny or prickly Samphire. Sea Parſnep.

Sea coaſt. At Rooſebeck Low Furneſs, Lancaſh. RAY. where I ſearched for it, which has been frequently done by a perſon reſident near that place, but without ſucceſs. Mr. WOODWARD.—Between Feverſham and Sea Salter. BLACKSTONE.

361. TORDYL'IUM. Hartwort.

Rundle unequal; of many ſpokes. *Rundlets* unequal; of many parts; very ſhort; flat.

EMPAL. *General Fence*; the *little-leaves* ſlender; undivided; frequently as long as the rundle. *Partial Fence* going half way round; outwardly longer than the rundlet. *Cup* with 5 teeth.

BLOSS. *General*, irregular in its ſhape, and unequal. *Florets* all fertile. *Individuals in the centre*, with 5 equal petals; heart-ſhaped, but bent inwards; *thoſe of the circumference* like the others; but the outermoſt petal largeſt, and deeply divided.

CHIVES. *Threads* hair-like; 5 in every floret. *Tips* ſimple.

POINT. *Seed-bud* beneath; in all the florets, roundiſh. *Shafts* 2; ſmall. *Summits* blunt.

S. VESS. *Fruit* roundiſh; almoſt flat, a little ſcolloped at the edge; diviſible into 2 parts.

SEEDS. 2; roundiſh; almoſt flat; but raiſed and ſcolloped at the edge.

ESS. CHAR. *Radiated. All the flowers with chives and pointals. Fruit roundiſh, notched at the edge. Fences long, undivided.*

OBS. Differs from *Caucalis* principally in all the florets being fertile, but in *T. anthriſcus* the rundle is ſomewhat radiated, and the florets in the centre of the rundlets have only chives. LINN.

TORDYL'IUM *officina'le*. Partial fences as long as the flowers. Little leaves egg-ſhaped, jagged.— *ſmall*

Dod. 314, *repr. in Lob. obſ.* 425. 1, *Ger. em.* 1050. 1, *and cop. in J. B.* iii. 6. 84. 2, *and ill cop. in Park.* 906. 8.—*Ger.* 894.

Stem nearly ſmooth, round, ſcored. *Lower-leaves* with 2 pair of little-leaves; *little-leaves* hairy, on leaf-ſtalks, the odd one at the end with 3 lobes; *thoſe of the upper-leaves* ſpear or ſtrap-ſpear-ſhaped, deeply ſerrated. *Florets* tinged with purple. *Seeds* large, flat, with broad, raiſed, notched edges. Mr. WOODW.—Which laſt circumſtance required that it ſhould be kept diſtinct from the other Engliſh ſpecies. Theſe Mr. Hudſon has accordingly very properly removed to the genus *Caucalis*. Mr. WOODWARD. ST.

Corn fields. On the banks of the road to Heddington about ½ a mile from Oxford. SHERARD in R. ſyn.—[Shewn me growing near Oxford by Mr. Newberry, but not on the road to Heddington. Mr. WOODWARD.]

TOR-

hedge TORDYL'IUM *Anthriſcus.* Rundles crowded. Little-leaves egg-ſpear-ſhaped, with winged clefts.—

Caucalis Anthriſcus. HUDS. which ſee.

Stem rough; hairs pointed, ſtiff, preſſed back, while thoſe of the *ſpokes of the rundles* are upright. *General fence* of ſeveral leaves, regular, ſometimes of 1 leaf; *leaves* ſimple. *Seed-bud* rough with hair; hairs purpliſh. *Rundle* ſomewhat radiated. *Rundlets*, the florets of the centre with only chives. *Bloſs.* not radiated, white, red underneath. LINN.—Some florets without chives. HALL.

knotted TORDYL'IUM *nodoſum.* Rundles ſimple, ſitting. The outer ſeeds rough.—

Caucalis nodoſa. HUDS. which ſee.

362. CAU'CALIS. Hensfoot.

Rundle unequal; of very few ſpokes. *Rundlets* unequal, with more ſpokes; the 5 outermoſt of which are the longeſt.

EMPAL. *General Fence* with the leaves undivided; ſhort; membranaceous at the edges; egg-ſpear-ſhaped; equal in number to the ſpokes of the rundle. *Partial Fence* with leaves ſimilar to the foregoing; longer than the ſpokes; generally 5 in number. *Cup* with 5 teeth, ſtanding out.

BLOSS. *General;* irregular in its ſhape, and unequal. *Florets* in the centre barren. *Individuals in the centre,* without pointals; ſmall; petals 5; equal; heart-ſhaped, but bent inwards; *in the circumference,* with both chives and pointals. *Petals* 5; heart-ſhaped; bent inwards; the outermoſt the largeſt, and cloven.

CHIVES. *Threads* hairlike; 5 in all the florets. *Tips* ſmall.

POINT. *Seed-bud* beneath; in the florets of the circumference oblong and rough. *Shafts* 2; awl-ſhaped. *Summits* 2: blunt; expanding.

S. VESS. *Fruit* oblong-egg-ſhaped; ſcored lengthways; rough with briſtly hairs.

SEEDS. 2; oblong; flat on 1 ſide; convex on the other; armed with awl-ſhaped prickles placed along the ſcores.

ESS. CHAR. *Bloſſoms radiated; thoſe in the centre with only chives. Petals nicked, and bent inwards. Fruit rough with briſtles. Fences entire.*

CAU'CALIS

CAU'CALIS *daucoi'des*. Rundles cloven into 5, *ſmall* leaf-leſs. Rundlets with 3 ſeeds, and 3 leaves. LINN.—Prickles of the ſeeds ſmooth. ST.*

Jacq. auſt. ii. 157.—*H. ox.* ix. 14. 6.—*Pet.* 27. 8.—*J. B.* iii. 6. 80. 1.—*Park.* 920. 6.

Stem very much ſtraddling, ſpreading, angular, ſcored, rough with hair. *Leaves* thoſe of the *Daucus*, but fewer. *Fruit-ſtalks* ſmooth, very long. *Rundle* cloven into 3 or 5. *Rundlets* ſitting, generally 3. *Fence* none. *Fencelets* of 3 leaves. *Florets* equal, not radiated, reddiſh, moſt of them barren. LINN.—*Fruit* generally 3 to each rundle, ſtraddling, crowned with the cup, oblong, with prickles. *Prickles* hooked, at ſome diſtance from each other, ſmooth. LINN. ST.—*Seeds* large. *Leaves* finely divided. RAY. Mr. WOODWARD. ST.——*Leaves* more than doubly compound, extremely elegant. *General* and *partial rundles* with ſometimes 4 ſpokes. *Partial fence* of moſtly 5 leaves. *Little rundles* with ſometimes 4 and 2 ſeeds. Mr. WOODWARD.—*C. daucoides ſp. pl.* appears to have been a diſtinct plant from that of the ſubſequent works, and it ſhould ſeem a variety of *C. grandiflora*. ST.

Caucalis leptophylla. HUDS. *ed.* I.

Fine-leaved Baſtard Parſley.

Corn fields and barren ſpots. [Marham, Norf. Mr. CROWE.—Carlby between Stamford and Bourn. Mr. WOODWARD.]

CAU'CALIS *latifo'lia*. General rundle cloven into 3; the partial ones with 5 ſeeds. Leaves winged, ſerrated.— *broad-leaved*

Jacq. hort. ii. 128.—*Mill.* 85, *leaves not ſo well done as in thoſe which follow.*—*Garid.* 22, *at p.* 146.—*H. ox.* ix. 14. *row* 1, *middle figure.*—*J. B.* iii. 6. 80. 2.—*Pet.* 27. 6.†—*Park.* 920, *the* 2 *uppermoſt of the ſmaller figures at n.* 6. 7.

Stem angular, and as is the whole plant and leaf ſtalks, rough with flat prickles. *Little-leaves* ſpear-ſhaped. *Rundles* with 3 and 4 ſpokes. *Rundlets* ſitting. *All the fences* egg-ſhaped, ſkinny, as long as

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* *Aculeis ſeminum lævibus.*—Add to the character of *C. leptophylla*, "*Prickles of the ſeeds rough.*" (*aculeis ſeminum ſcabris,*) which circumſtance appears to afford a more certain mark of diſtinction than the fence or the ſpokes of the rundle. For the *C. daucoides* has ſometimes rundles with 5 rays, and a fence of 1 leaf; and the fence of the *C. leptophylla* is only generally wanting, and I have a ſpecimen of it in which the rundles conſiſt of 3 ſpokes. ST.

† *Pet.* 27. 7, *Echinophora laciniata.* R. ſyn. 219, may poſſibly prove a var. of it. ST.

as the ſpokes;* the *general* one from 3 to 5 leaves; the *partial* of 5. *Florets* equal, white; many of them barren. *Fruit* 5 in each rundlet, rough with prickles; *prickles* very rough with minute reflected prickles. LINN. ST.—*Strigæ*, or ſtrong ſpear-ſhaped briſtles, pointing upwards. *Little-leaves*, the *lower* almoſt with winged clefts, the *upper* confluent with the mid-rib. *Leaf-ſtalks* membranaceous and ſkinny at the edge. *Bloſs.* tinged with purple; *outer petal* larger than the reſt. Mr. WOODWARD. ST.

Corn fields. Crooks Eaſton, Hampſhire. HUDS.—[Between Cambridge and Gogmagog Hills. Mr. WOODWARD.] A. July.

corn CAU'CALIS *arvenſis*. General fence of 1 leaf. Rundle crowded. Seeds roundiſh-egg-ſhaped. Little-leaves egg-ſpear-ſhaped, with winged clefts. Branches ſtraddling. HUDS. Mr. WOODWARD. ST.

Jacq. auſtr. ii. 46.—*Pet.* 27. 10.

Stem about a foot, and ſeldom, if ever, more than a cubit high; knots more frequent than in *C. anthriſcus*; and leſs hairy towards the root. *Bloſs.* white, with a caſt of yellow. Never found in hedges, and moſtly in corn fields. RAY. ST.—*Branches* numerous, alternate, very much ſtraddling. *Seeds* rough with ſtrong hair. Mr. WOODWARD.—*Stem* ſmooth towards the root, above roughiſh with minute ſhort hairs, lying cloſe to the ſtem and branches. *Branches* more expanding than in *C. anthriſcus*, and ſometimes ſtraddling. *Rundle* with 5, and ſometimes 4 or 3 rays. *Seeds*, inner and outer alike; *hairs* bowed upwards, rough with minute points, and generally terminated by a hooked point. ST.

Scandix infeſta. LINN. according to JACQ. HUDS. and ROTH. but not ſo according to REICH.

Chalky corn fields. HUDS.—And in clay alſo. ST.

A. July. Aug.

hedge CAU'CALIS *Anthriſcus*. Fences cloven into many parts. Rundle crowded. Seeds oblong. Little-leaves egg-ſhaped, with winged clefts. Branches upright. HUDS. LIGHTFOOT. WIGGERS. Mr. WOODWARD. ST.

Jacq. auſtr. iii. 261.—*C. B. pr.* 80, *cop. in Ger. em.* 1022. 5, *which cop. in Park.* 921. 9, *and Pet.* 27. 9.—*J. B.* iii. 6. 83. 1, *cop. in H. ox.* ix. 14. 8.

Stem, hairs white, ſhort. *Leaves* hairy, with about 2 pair of leafits; the terminating leafit very long. *General fence*, leaves ſtrap-

* General fence many times ſhorter than the ſpokes. ST.

ſtrap-ſhaped, from 5 to 8, not half the length of the rundle. *Rundle*, ſpokes 8 to 10. *Partial fence*, leaves ſpear-ſhaped, ſurrounding, and of the length of the rundlet. *Empalement*, teeth tapering to a fine point. *Florets* all fertile. WITH.

Tordylium Anthriſcus. LINN. which ſee.

Hedge Parſley.

Hedges. B. Aug.

Horſes are extremely fond of it.

CAU'CALIS *nodo'ſa*. Rundles ſitting, at the knots of the ſtem. Rays unequal. SCOP.—Rundles lateral, ſimple, ſitting. HUDS. Mr. WOODW. ST.—*Rundles ſometimes on ſhort fruit-ſtalks*. Mr. WOODWARD. ST. *knotted*

Jacq. auſtr. app. 24.—*Ger. em.* 1022. 6; *cop. in H. ox.* ix. 14. 10, *and Pet.* 27. 11.—*J. B.* iii. 6. 83. 2.

Leaves finely divided, with a ſlight hairineſs on each ſide. *Rundles* oppoſite to the leaves. The inner *ſeeds* rough with wart-like points. SCOP. ST.—Reſembling ſhagreen. Mr. WOODW. ST.—Whole *plant* rigid. *Hairs* of the ſeeds ſtraight to the point, rough with minute prickles, pointing backwards. In a ſpecimen from Montpelier *all* the ſeeds rough with ſtrong hair. ST.

Caucalis pumila ſegetum Goodyero Ger. em. 1022.

Borders of corn fields. A. May.—July.

CAU'CALIS *Caro'ta*. CRANTZ.—General fence of ſeveral leaves, with winged clefts. When out of flower the ſpokes of the rundles approaching. Leaves more than doubly compound. Leaf-ſtalks ſtringy underneath. HUDS. Mr. WOODWARD.—But the *winged fence*, as well as *habit*, confirm the arrangement of Linnæus and Haller. ST. *Carrot*

Daucus Carota, which ſee.

364. DAU'CUS. Carrot.

Rundle of many ſpokes; flat while in flower, but when in fruit concave and approaching. *Rundlets* ſimilar to the foregoing,

EMPAL. *General Fence* of many leaves; as long as the rundle; the leaves ſtrap-ſhaped, with winged clefts. *Partial Fence* more ſimple; as long as the rundlet. *Cup* hardly perceptible.

BLOSS. *General*, irregular in its ſhape, and unequal. *Florets* in the centre barren. *Individuals*, petals 5, heart-ſhaped, bent inwards; the outermoſt the largeſt.

CHIVES. *Threads* 5; hair-like. *Tips* ſimple.

POINT. *Seed-bud* beneath; ſmall. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* egg-ſhaped; diviſible into 2; generally beſet with inflexible hairs.

SEEDS. 2; ſomewhat egg-ſhaped; convex, and rough with hairs on one ſide; flat on the other.

ESS. CHAR. *Bloſſom ſomewhat radiated, all with chives and pointals. Fruit rough with ſtrong hairs.* LINN.—*Flowers of the centre abortive.* REICH. *ſyſt. pl.*——The *winged fence* very juſtly forms a part of the generic character. HALL. ST.

common DAU'CUS *Caro'ta.* Seeds rough with ſtrong hairs. Leaf-ſtalks ſtringy underneath.—

Ludw. 9.—*Fl. dan.* 723.—*Blackw.* 546.—*Ger.* 873, *ripe rundles.*—*Matth.* 748, *imitated by Dod.* 679, *repr. in Lob. obſ.* 416. 2, *Ger. em.* 1028, *and cop. in Park.* 902. 1, *in fruit.*—*Fuchſ.* 684, *diviſions of leaves too broad; ill cop. in J. B.* iii. 6. 62.—*H. ox.* ix. 13. 2.—*Trag.* 440.

Flowers in the circumference often barren, and often with only pointals; thoſe of the centre with chives and pointals. POLLICH.—The *floret* in the centre of the rundle often of a deep crimſon, and producing a ſeed to all appearance perfect. ST. *in ed.* i.—*Petals* white. *Stems* furrowed, rough with hairs. *Fencelets* ſtrap-ſpear-ſhaped. *Rundle* when out of flower concave; ſpokes 40. *Rundlets*, ſpokes 30. *Flowers* white, thoſe in the middle of the rundle ſometimes purpliſh. RELH.

Caucalis Carota. CRANTZ. &c. which ſee.

Bird's Neſt.

Meadows and paſtures. B. June.—Aug.

The

The ſeeds have been ſometimes uſed as diuretics and carminatives; and are highly recommended in calculous complaints. WITH.—An infuſion of them has been found to afford relief in ſharp fits of the gravel. Mr. WOODWARD.—It proved very beneficial in the caſe of a lady who paſſed calculi of conſiderable ſize. ST.

2. This in its cultivated ſtate is the well known garden carrot, whoſe roots are eaten either boiled or raw. When raw, they are given to children troubled with worms. They ſeem to paſs thro' moſt people but little changed. WITH.—On which account I have employed them as a means of aſcertaining the time which food takes to paſs through the tract of the alimentary canal. ST.—They are a grateful and nutritious food to all kinds of cattle, and well worthy of a more general cultivation for the purpoſe of the farmer. Crickets are very fond of them, and are eaſily deſtroyed by making a paſte of powdered arſenic, wheat meal, and ſcraped carrots, which muſt be placed near their habitations. A poultice made of the roots has been found to mitigate the pain, and abate the ſtench of foul and cancerous ulcers.

3. Leaves of a dark green, gloſſy.

Sea ſhore, near Dover. RAY, *p.* 218. *n.* 3.

In a ſpecimen from the coaſt of Cornwall the leafits are remarkably broad, and but ſlightly cut. ST.

366. BU'NIUM. Pignut.

Rundle with fewer than 20 ſpokes. *Rundlets* very ſhort; crowded.

EMPAL. *General Fence* of many ſtrap-ſhaped ſhort leaves. *Partial Fence* briſtly; as long as the rundlet. *Cup* hardly diſcernible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*; petals 5; equal; heart-ſhaped; bent inwards.

CHIVES. *Threads* 5; ſhorter than the petals. *Tips* ſimple.

POINT. *Seed-bud* beneath; oblong. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* egg-ſhaped; diviſible into 2 parts.

SEEDS. 2; egg-ſhaped; convex on one ſide; flat on the other.

ESS. CHAR. *Bloſſom uniform. Rundle crowded. Fruit oval.*

BU'NIUM *Bulbocaſtanum. Sp. pl. and Syſt. veget.*— *greater* Fence of many leaves. *Syſt. pl. a* REICH.—Leaves uniform.

Fruit nearly cylindrical, thicker towards the end. Shafts bent back, falling off. GOUAN.—Stem thickening at the baſe. ST.

Fl. dan. 220.*—*Barr.* 244.—*Dod.* 334. 1, *repr. in Lob. obſ.* 429. 2, *ic.* i. 745. 1, *Ger. em.* 1064. 2, *and cop. in Park.* 893, *Ger.* 906. 1, *H. ox.* ix. 2. *row* 2, *fig.* 2*d*, *n.* 1, *and Pet.* 25. 9.—*J. B.* iii. 6. 30.—*Ger.* 906. 2.—*Matth.* 866, *root and leaves.*

I inſert this ſpecies on the authority of Ray; add to which, that Mr. Hudſon admits the figures referred to by Linnæus. ST.

Bunium minus. GOUAN. illuſtr. 10, as is evident from the general fence obſervable in the figures referred to by Linnæus and C. B. —*Bulbocaſtanum alterum caule firmiore.* BARR. (ST.)

In a field between Hornſey Wood and Old Fall, near the foot-path. MARTYN in *R. ſyn. ed.* III.—[Worſbrough near Barneſley? Mr. E. COCKSHUT.]

leſſer BU'NIUM *flexuoſum.* Stem at the baſe tapering downwards, and zigzag. ST.‡—Stem-leaves very narrow. General fence wanting. Fruit egg-ſhaped, taper-pointed. Shafts permanent. GOUAN.—*But ſometimes a general fence of from* 1 *to* 3 *leaves.* ST.

Curt. 4. 46.—*Ger. em.* 1064. 1.—*Tourn.* 161. 2.

From the *root*, which groweth 4 or 5 inches deep in the earth, riſeth up a long, ſlender, whitiſh ſtring or *ſtalk*, not always ſtraight, but folding or crumpling itſelf to and fro unto the top of the ground, from whence it riſeth a little bigger. PARK. ST.—The *greater* and *leſſer Bulbocaſtanum* appear to be diſtinct ſpecies. The *leſſer* is common, but the *greater* rare. Johnſon in his Ger. has well diſtinguiſhed them. MARTYN in *R. ſyn.*——*Root* tuberous. RELH.—*Root-leaves* on long leaf-ſtalks, trebly winged, generally 3, appearing before the ſtem; *little-leaves* ſpear-ſhaped, ſimple, or cloven into 3. *Stem-leaves* doubly winged; *little-leaves* ſtrap-ſhaped, not wider than the mid-rib; ſimple, or cloven into 3. Mr. W.—*Stem* ſmooth, ſcored, but little branched. *Leaves* doubly winged; ſegments very ſlender, and tapering to a point. *General fence* ſeldom of more than 1 or 2 very ſlender leaves, but in moſt inſtances altogether wanting, and after examining above 50 plants growing in different ſoils both in woods and open paſtures, I could never find more than one with any general fence after the bloſſoms were opened.

* Does not reſemble our plant, being much branched, and the leaves differing both in ſhape and diviſion. Mr. WOODWARD.

‡ Caule baſi attenuato flexuoſo. ST.

opened. *Partial fence* moſtly ſhorter than the rundlet, of 3 or 4 very ſmall ſpear-ſhaped leaves. *Rundle*, ſpokes 8 to 12. *Rundlets*, ſpokes about 16. *Petals* ſpear-ſhaped, rolled inwards. *Threads* longer than the petals. *Shafts*, at firſt cloſe, afterwards ſtraddling, but never bent back. WITH. ST.—*Roots* bulbous. *Petals* white.

Nucula terreſtris minor. PARK.—*Bunium majus*. GOUAN. illuſtr. 10, an improper name, as the *Bulbocaſtanum majus fol. apii* of *C. B.* is the *B. Bulbocaſtanum* of *Linnæus*. ST.

Earth, Kipper, Pig, Hawk, or Jur-nut. Earth Cheſnut.

Meadows, paſtures, orchards, and woods. P. May. June.

The roots eaten either raw, boiled, or roaſted, are very little inferior to Cheſnuts, and would be an agreeable addition to our winter deſerts. WITH.

367. CO'NIUM. Hemlock.

Rundle of many ſpokes; expanding. *Rundlets* the ſame.
EMPAL. *General Fence* of many leaves; very ſhort; unequal. *Partial Fence* the ſame. *Cup* hardly perceptible.
BLOSS. *General*, uniform. *Individuals*; petals 5; unequal; heart-ſhaped, but bent inwards.
CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.
S. VESS. None. *Fruit* nearly globular; with 5 ſcolloped ridges; diviſible into 2 parts.
SEEDS. 2; convex on one ſide; almoſt hemiſpherical; ſcored; flat on the other ſide.
ESS. CHAR. *Fencelets going half way round, generally of 3 leaves. Fruit nearly globular, with 5 ſcores, notched on each ſide.*

CO'NIUM *macula'tum*. Seeds ſcored.— *common*
Curt. i. 7, *ſeeds repreſented as fringed with ſhort hairs.*—*Jacq. auſtr.* ii. 156.—*Storck, ſeeds not notched.*—*Gent. Mag.* 1762. *p.* 273. —*Cluſ.* ii. 200. 2, *repr. in Dod.* 461, *Lob. obſ.* 422. 1; *ic.* i. 732. 1, *Ger. em.* 1061, *and cop. in Park.* 933. 1.—*H. ox.* ix. 6. *row* 3. 1.—*Blackw.* 573. *a.* 6.—*Fuchſ.* 406, *cop. in J. B.* iii. 6. 175. 3.—*Trag.* 474.—*Matth.* 1098, *poſſibly cop. in Ger.* 903. 1.—*Blackw.* 451.

Stems and *branches* ſhining, ſpotted and ſtreaked with browniſh or blackiſh purple. *Partial fence* of 1 leaf, divided into 3 and 4; *ſegments* at the edges white and membranaceous. *Outer petals* the largeſt. *Petals* white. WITH.

Kex.—Hedges, orchards, rubbiſh, cultivated ground, and dunghills. B. June. July.

The whole plant is poiſonous, and many inſtances are recorded of its deleterious effects; but modern experience has proved it to be leſs virulent than was formerly imagined. Dr. Storck, of Vienna, was the firſt who ventured to give it internally in conſiderable quantities, and from his account of its good effects in a variety of caſes, particularly in cancers and ſchirrous tumours, it has been very generally employed in this kingdom. He directs an extract to be prepared from it by evaporating the expreſſed juice over the fire, and then adding a ſufficient quantity of the powdered leaves to form it into pills. He generally gave from 2 to 12 grains for a doſe, but ſome have taken it in much larger quantities. By the accounts from Vienna, the expectations of the world were raiſed to a very high pitch; and, as is then generally the caſe, theſe expectations have been diſappointed; ſo that after a very extenſive application of it for ſeveral years, it is now likely to be entirely diſregarded, as a medicine of little or no uſe. Perhaps, however, the truth will be found to lie in the medium between the two opinions. Many reaſons may be aſſigned to ſhew that it has yet undergone but an imperfect trial; ſome of which I ſhall beg leave to mention.

1ſt. The *Wild Cicely*, or *Cow Weed*, has often been gathered inſtead of the intended plant; and it is not improbable but other plants may have been likewiſe miſtaken for it, for many of the *Rundle-bearing* or *Umbelliferous Plants* are ſo much alike, that it requires more ſkill in botany to diſtinguiſh them, than we can ſuppoſe the common collectors of medicinal plants to poſſeſs. They know plants that they have been taught to collect and to diſtinguiſh, but this was one that had never before been in requeſt. After ſome time, however, the ſpots upon the ſtalks were pointed out as a criterion, and then there was leſs probability of miſtakes.

2dly. The ſeaſon of its higheſt perfection has never yet been ſufficiently aſcertained. Some ſuppoſe it ought to be gathered juſt as its bloſſoms open, others ſay not till the ſeeds are forming; but even theſe ſuppoſitions have been too little attended to.

3dly. Perhaps the plants of this natural order have their properties more changed by ſoil and ſituation, than thoſe of any other natural order; yet this circumſtance has been entirely diſregarded.

4thly. No vegetable that is uſed in medicine is more liable to ferment than this. I have ſeen it, when collected in a bag, and, carried only two miles on horſeback, heat and ferment to ſuch a degree, that the yield of extract was much leſs than uſual, and the properties of it greatly impaired. 5thly,

5thly. At its firſt introduction it was very common to take only the clearer part of the expreſſed juice, and to throw away the feculencies. Whenever this is done, the medicine is ſpoiled.

6thly. Too little attention has been given to the degree of heat applied during the evaporation. Many things loſe their peculiar properties when expoſed to more than the heat of boiling water, and others are greatly changed even by that. Many reaſons may be alledged to prove that Hemlock is one of theſe.

When further experience has pointed out the beſt ſeaſon for gathering the plant, and in what ſoils and ſituations it poſſeſſes the greateſt virtues, I believe a medicine much more efficacious than that commonly uſed, may be obtained by attending to the following directions:

Let ſeveral people be employed to gather the plant, and as faſt as it is cut, let others carry it in hand baſkets to the preſs; but it muſt lie light and looſely in the baſkets. Let it be bruiſed and the juice immediately ſqueezed out; and as faſt as it runs from the preſs, it muſt be put over the fire, and boiled till three parts out of four of the whole liquor is waſted. Then it muſt be put into a water bath, and evaporated to the conſiſtence of honey. If it be now taken and ſpread thin upon a board or marble ſlab, and expoſed to the ſun and to the air, it will ſoon be of a proper conſiſtence to be formed into pills. From 5 to 10 grains of this extract is a proper doſe; few conſtitutions will bear more without experiencing diſagreeable effects.

Such a medicine as this, I believe, will be found an uſeful addition to our materia medica: not that I have ſeen it cure cancers either in an ulcerated ſtate or otherwiſe, but I have never given it without a mitigation of pain, and an amendment of the diſcharge. Dr. Fothergill, in the 3d vol. of the Med. Obſ. has given us a variety of caſes, to which I can with pleaſure refer the reader, as they perfectly correſpond with my own experience in a pretty extenſive hoſpital practice for ſeveral years paſt. Dr. Butter uſes it in the chincough; but I have had no opportunity of trying it in that diſeaſe. WITH.—An extract prepared from the ſeeds is ſaid to be much more powerful than that from the juice of the plant, and to have done conſiderable ſervice in ſome cancerous caſes at Edinburgh. See *Med. Comm.* i. *p.* 326.

After all it may be ſaid, that it acts merely as a narcotic, and only effects what ſmall doſes of opium will do, in a leſs diſagreeable manner. But till further experience gives a ſanction to this opinion it muſt not be too haſtily adopted; and if it ſhould prove at laſt that it is only a narcotic, ſurely there are many caſes in which a narcotic that does not occaſion coſtiveneſs is preferable to one that does. WITH.

The preceding directions were given in the firſt edition of this work, and they are retained in this for the aſſiſtance of thoſe who may ſtill wiſh to adminiſter the extract; but ſuch is the uncertainty of that preparation, owing to the difficulty of making it, that I have now for ſome years laid aſide the uſe of it, and preſcribed only the powder of the dried leaves. Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little-leaves and throw away the leaf-ſtalks. Dry theſe ſelected little-leaves in a hot ſun, or on a tin dripping-pan or pewter diſh before a fire. Preſerve them in bags made of ſtrong brown paper, or powder them, and keep the powder in glaſs vials, in a drawer, or ſomething that will exclude the light, for the light ſoon diſſipates the beautiful green colour, and with its colour, the medicine loſes its efficacy. From 15 to 25 grains of this powder may be taken twice or thrice a day. I have found it particularly uſeful in chronic rheumatiſms, and alſo in many of thoſe dieaſes which are uſually ſuppoſed to ariſe from acrimony. The nature of this book does not allow of minute details of the virtues of plants, but I can aſſure the medical practitioner that this is well worth his attention, WITH.

Sheep eat the leaves. Horſes, Cows, and Goats refuſe them. LINN.—A Horſe eat ſome of the young leaves, but was rather indifferent to them. ST.—Thruſhes feed upon the ſeeds.

368. SELI'NUM. Milkweed.

EMPAL. *General Rundle* of many ſpokes, flat, expanding; the *partial* ſimilar. *General Fence*, leaves ſeveral; ſpear-ſtrap-ſhaped; bent back; the *partial* ſimilar; expanding; as long as the bloſſom. *Cup* hardly diſcernible.

BLOSS. *General*, uniform. All the *florets* fertile. *Individuals*, petals 5; heart ſhaped; equal.

CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; bent back. *Summits* ſimple.

S. VESS. None. *Fruit* between compreſſed and flat; oval oblong; ſcored on each ſide along the middle; diviſible into 2.

SEEDS. 2; oval oblong; flat on each ſide; ſcored along the middle; edges membranaceous.

Eſs.

Ess. Char. *Fruit oval ablong; between compreſſed and flat; ſcored along the middle. Fence bent back. Petals heart-ſhaped; equal.*

SELI'NUM *paluſ'tre.* Somewhat milky. Root ſingle. Linn. Huds. Curt. *cat.*—Shafts widely expanding. Petals rolled in at the point.* St.——Root often manifold. Hall. Mr. Woodward. St. *marſh*

Jacq. auſtr. ii. 152.‡—*Dod.* 699, *repr. in Ger.* †*em.* 1020, *and cop. in Park.* 928, *and ill cop. in H. ox.* ix. 17. 2, *with the addition of ſeeds of the natural ſize.—Lob. obſ.* 409. 1; *ic.* i. 711. 1, *C. B. pr.* 85, *cop. in Park.* 904. 6, *in fruit, fences wanting.—Fl. dan.* 412, *fruit ſmooth.—(Crantz.* iii. 4. 1, *is juſtly believed to be S. Caruifolia.—Fl. dan.* 257, *not the plant.—J. B.* iii. 6. 188, *is a different plant.)*

Herb ſomewhat milky. *Stem* moſtly ſingle, harder, deeply ſcored. The terminating *little-leaves* elongated. *Root* hot in the mouth. Linn.—The whole *plant* when wounded pouring forth a milky juice. *Root* thick, branching, yellowiſh without, white within. *Stem* upright, 2 and often 3 cubits high, deeply furrowed, of a pleaſant green, ſmooth, reddiſh at the baſe, ½ inch thick, hollow, knotty, forked. *Leaves* of a pleaſant green, ſmooth, triangular, in the more luxuriant plants upwards of a cubit long, and 1½ feet or more in breadth; the uppermoſt ſitting, trebly and quadruply winged, the laſt leafits winged-cleft; wings with 2 or 3 clefts, ſtrap-ſhaped, very entire, reddiſh at the points. *Rib* ſmooth. *Sheaths* ſmooth, ſcored. *Fruit-ſtalks* of the rundles ſcored, ſmooth. *Rundle* large, beautiful; ſpokes about 30. *Rundlets*, ſpokes upwards of 40. *Fence* permanent; leaves ſpear-ſhaped, about 9. *Fencelet* about 12. *Seeds* roundiſh, blunt, edged with a kind of border, ſcored in the centre, ſmooth. *Flowers* about 2 lines in breadth. *Petals* blunt, with 2 ſlight lobes, white, before flowering reddiſh on the outſide. Pollich. Mr. Woodward. St.—*Root* ſingle next the ſtem, but then branched into numerous, thick, tapering diviſions. *Leafits*, the extreme ones cloven into 3, and the middlemoſt of theſe elongated. In the Lancaſhire plants ſtrap-ſhaped, and but little broader than the rib. *Rundle* ſpreading.

Rundlets

* Stylis patentiſſimis, corollulis apice involutis. St.

‡ Called by the author *S. ſylveſt.* but it ſhould ſeem from the ſcored ſtem to be *S. paluſtre.* Reich. St.—Our plant exactly accords with the figure, as alſo with ſpecimens of the Auſtrian plant given me by the Profeſſor's ſon. St.

† Referred by *C. B.* to *S. ſylveſtre,* but the ſtems are deſcribed and figured by *Dod.* as ſcored. St.

Rundlets diſtant. Mr. WOODWARD. ST.—*Leaſits* in the Norfolk plants ſhorter, ſtrap-ſpear-ſhaped, ſpear-ſhaped, and ſometimes oval-ſpear-ſhaped. Mr. WOODWARD.—*Root* when broken pouring out from ſeveral places a milky juice, of an aromatic flavour, ſomewhat like that of *Daucus Carota ſylveſtris*, with a degree of bitterneſs, and when chewed ſometimes attended with a conſiderably pungent heat; branches horizontal. Whole *plant* ſmooth. ST. —*Stem* 3 feet high, branched. *Leaves* reſembling thoſe of *Daucus Carota*. *Rundles* large. *Bloſs* white. *Roots* and *ſeeds*, particularly after ſeeding, of a very ſtrong but agreeable ſcent when bruiſed. Mr. HALL.

S. ſublact. leve, &c. Hall. n. 799.—*S. Tyſſelinum. Crantz.* 170.—*S. lacteſcens, caule aſpero, &c. Hall. n.* 800, *ſhould ſeem to be the ſame with n.* 799, *if Crantz.'s obſ. be well founded.* ST.

Wild Parſley. Wild Milky Parſley. PARK.

Marſhes, near Doncaſter. TOFIELD in Hudſon.—[But a friend writes me from Doncaſter, that the beſt botaniſt in that neighbourhood is of opinion that it does not grow there, and that Mr. Tofield's ſpecimen came from a diſtance. Mr. WOOD.—Found in 1779 or 1780 by Mr. Seatle, at Cannon Winder, near Flookburgh, Lancaſhire, in the ditches near the ſand ſide not very plentiful; and I have ſince found it round the ſides of Ayſide Tarn, 3 miles north of Cartmell. Mr. HALL.—Brought to me and Mr. Crowe, when in Lancaſhire in 1781, by the Rev. Mr. Jackſon. Mr. WOODWARD.—In Alder Swamps, near Yarmouth. Mr. WIGGERS.]

369. ATHAMAN'TA Spignel.

Rundle of many ſpokes; expanding. *Rundlets* with fewer ſpokes.

EMPAL. *General Fence* many ſtrap-ſhaped leaves; a little ſhorter than the ſpokes. *Partial Fence* ſtrap-ſhaped; as long as the ſpokes. *Cup* not diſcernible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*, petals 5; heart-ſhaped; bent inwards; nearly equal.

CHIVES. *Threads* 5; hair-like; as long as the petals. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; diſtant. *Summits* blunt.

S. VESS. None. *Fruit* oblong-egg-ſhaped; ſcored; diviſible into 2 parts.

SEEDS. 2; egg-ſhaped; convex and ſcored on one ſide, flat on the other.

Eſs.

Ess. Char. *Fruit egg-oblong; ſcored. Petals bent inwards; nicked.*

ATHAMAN'TA *Libano'tis.* Leaves doubly winged, flat. Rundles hemiſpherical. Seeds hairy.— *mountain*

Jacq. auſtr. iv. 392 *and* 392,* *cop. in Relh. at p.* 113.—*Fl. dan.* 754.—*J. B.* iii. 6. 105.—*Pluk.* 173. 1.—*C. B. pr.* 77. 1.—*In both the laſt the leaves are ſimply winged with wing cleft leaves; but Gouan informs us, that from the ſeeds of this he has raiſed plants according with the Linnæan character.*

Root deſcending, bearded at the top. *Stem* about 2 feet high, with ſtrongly marked angles; unequally furrowed; generally ſimple, and rather ſmooth, ſomewhat zigzag towards the top. *Leafits* wedge-like, remote, not tiled, with wing-like gaſhes, ſomewhat confluent; the poſterior and lower wings larger; all ſmooth above, underneath pale, with the veins and edges juſt ſenſibly hairy. *Leaf-ſtalks* ſomewhat flatted, and amongſt the leafits channelled. The *terminating rundle* terminating, upright, on a furrowed fruit-ſtalk, the whole whitiſh. *Fence*, leaves awl-ſhaped, half as long as the rundle. *Fencelets* of many leaves. The uppermoſt *lateral rundles* oppoſite, ſhorter, ariſing from the boſom of a bellying membrane ſimilar to the baſe of the other leaf-ſtalks, but which here is leaf-leſs. *Tips*, *ſhafts* of the fruit, and *receptacles* of the flower purpliſh. Linn.—*Terminating rundle* ſometimes proliferous, with the ſpokes of the *rundlets* 2 inches long. Relh.—The firſt pair of wings (in the lower-leaves. St.) next the leaf-ſtalk placed croſs-wiſe. Hall. Mr. Woodward.—*Lower-leaves* almoſt trebly winged, the wings being deeply wing-cleft. Mr. W.

Daucus montanus, apii folio minor. C. B. *pin.* 150, *prodr.* 77, as given by Scop.—*(And not Libanotis apii folio minor.* C. B. 157, who refers to *Lob. obſ.* 402. 3, which is a plant with the little-leaves merely *ſerrated.)* The ſource of the above error may be ſeen from examining the ſynonyms of the Fl. ſuec. St.

Mountain Stone Parſley.—Chalk Pit Cloſe, Hinton, Cambridgeſh. Firſt diſcovered in Great-Britain by Mr. Relhan. P. Aug. Sept.

Sheep and Swine eat it. Cows refuſe it.

ATHAMAN'TA *Oreoſeli'num.* Leafits ſtraddling.— *ſtraddleleav'd*

Jacq. auſtr. 80.—*Cluſ.* ii. 195. 2, *repr. in Dod.* 696, *Lob. obſ.* 406. 1; *ic.* 707. 2, *Ger. em.* 1015.—*(Mr. Hudſon refers to J. B.* iii. 6. 105, *& Pluk.* 173. 1, *but theſe according to Linnæus are his A. Libanotis.)*

Little-leaves egg-ſhaped, pointed; *wings* cut, not ſerrated. *Partial leaf-ſtalks* ſtraddling and bowed. Linn.

Dry

Dry meadows and paſtures. Gogmagog Hills, Cambridgeſh. RAY and HUDS.—No longer to be found there. Mr. WOODWARD. —Neither does Mr. Relhan notice it in his Flora cantab. ST.— Between St. Alban's and Stony Stratford. HUDS. P. July. Aug.

common ATHAMAN'TA *Me'um*. Leaves hair-like. Seeds ſmooth, ſcored. *Sp. pl.* HUDS.

Æthuſa Meum, which ſee.

370. PEUCED'ANUM. Sulphurwort.

Rundle of many very long, ſlender ſpokes. *Rundlets* expanding.

EMPAL. *General Fence* many leaves; ſtrap-ſhaped; ſmall; reflected. *Partial Fence*, ſtill ſmaller. *Cup* with 5 teeth; very ſmall.

BLOSS. *General*, uniform. *Florets* in the centre barren. *Individuals*, petals 5; equal; oblong; entire; bent inwards.

CHIVES. *Threads* 5; hair-like. *Tips* ſimple.

POINT. *Seed-bud* beneath; oblong. *Shafts* 2; ſmall. *Summits* blunt.

S. VESS. None. *Fruit* egg-ſhaped; diviſible into 2; ſcored on each ſide; encompaſſed round by a membranaceous border.

SEEDS. 2; oblong-egg-ſhaped; compreſſed; convex on one ſide, and marked by three riſing ridges; bound round by a broad, flat membrane; notched at the end.

ESS. CHAR. *Fruit egg-ſhaped; ſcored on each ſide; bordered with a membrane. Fences very ſhort.*

common PEUCED'ANUM *officina'le*. Leaves 5 times divided into 3; thread-ſtrap-ſhaped—

Fuchſ. 599, *cop. in. J. B.* iii. 6. 36. 1.—*Dod.* 317, *repr. in Lob. obſ.* 453; *ic.* i. 781, *Ger. em.* 1054. 1, *and cop. in Park.* 880. 2.—*Ger.* 896. 1.—*Trag.* 881,

—*Petals* yellowiſh.

Sulphurwort. Hogs Fennel. Hareſtrong.

Salt marſhes. Shoreham, Suſſex. Walton, near Harwick, Eſſex; and near Feverſham. R. *ſyn.*—About Yarmouth and Clay, Norfolk. HUDS. P. June. July.

The roots have a ſtrong fetid ſmell, and an acrid, bitteriſh, unctuous taſte. Wounded in the ſpring they yield a conſiderable quantity

quantity of yellow juice, which dries into a gummy reſin and retains the ſtrong ſcent of the root. Its virtues have not yet been aſcertained with any preciſion.

PEUCED'ANUM *minus*. Leaves winged; leafits with winged clefts; ſegments ſtrap-ſhaped, oppoſite. Stem very much branched, open. HUDS. *ed.* I. LINN. *rock*

Pimpinella dioica, which ſee.

PEUCED'ANUM *Silaus*. Leafits with winged clefts; ſegments oppoſite. General fence of 2 leaves. LINN.—*Frequently of one.* Mr. WOODWARD. ST.—*And when cultivated of ſeveral.* RETZ. *meadow*

Jacq. auſtr. i. 15.—*Crantz. umb.* 6, *repr. in auſtr.* iii. 6.—*Ger.* 1047. 1, *cop. in Park.* 904. 4, *and J. B.* iii. 6. 171.—*Ger.* 877.—*Dod.* 310. 2, *repr. in Lob. obſ.* 425. 4; *ic.* i. 738. 1, *Ger. em.* 1048. 2, *and cop. in Park.* 904. 3.

Fence, *leaves* ſtrap-ſhaped, brown at the point. RETZ. *obſ.* ii. 48.—*Root-leaves* on long, cylindrical, ſcored, ſmooth leaf-ſtalks. *Stem-leaves* on ſhorter leaf-ſtalks, which are membranaceous at the baſe. *Lower-leaves* trebly compound; the *little-leaves* cloven into 2 or 3 ſpear-ſhaped ſegments. *Stems* upright, cylindrical, ſcored, ſmooth, tinged with red above the root. *General fence* 2 little-leaves. *Partial fence* 12 ſpear-ſhaped leaves, deep purple or black at the ends. *Rundle* of about 7 ſpokes. *Rundlets* 12 to 20, and upwards. All the *florets* generally fertile, but ſome of the central ones ſometimes barren. *Petals* pointed, yellow. *Threads* long. *Tips* yellow. *Seed-bud* crowned with a glandular yellow receptacle, turning to a deep red as the ſeeds ripen. WITH.

Meadow Saxifrage.

Moiſtiſh meadows and paſtures. P. Aug.

A Horſe eat it. ST.

371. CRITH'MUM.

371. CRITH'MUM. Samphire.

Rundle of many ſpokes; hemiſpherical. *Rundlets* the ſame.
EMPAL. *General Fence* many leaves; *leaves* ſpear-ſhaped; blunt; reflected. *Partial Fence* between ſpear and ſtrap-ſhaped; as long as the rundlet. *Cup* hardly perceptible.
BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*, petals 5; egg-ſhaped; bent inwards; nearly equal.
CHIVES. *Threads* 5; ſimple; longer than the petals. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.
S. VESS. None. *Fruit* oval; compreſſed; diviſible into 2.
SEEDS. 2; oval; flat; but ſomewhat compreſſed; ſcored on one ſide.
ESS. CHAR. *Fruit oval; compreſſed. Florets equal.*

rock CRITH'MUM *marit'imum*. Leafits fleſhy, ſpear-ſhaped.—

Jacq. hort. ii. 187.—*Dod.* 705. 1, *repr. in Lob. obſ.* 213. 2; *ic.* i. 392. 2, *Ger. em.* 533. 1, *and cop. in J. B.* iii. 6. 194, *and H. ox.* ix. 7. *row* 1. 1.—*Lon.* i. 257, *foliage.*—*Matth.* 489, *cop. in Ger.* 427. 1.—*(Park.* 1286. 1, *is not the plant.)*

Sea coaſt. [On the chalk cliffs near the Needles in the Iſle of Wight. ST.—On all the cliffs on the Corniſh coaſt. Mr. WATT.] —Fields about Porth Gwylan, Caernarvonſhire, covered with it. PENN. *Wales.* ii. 200. P. Aug.

Poor people on the ſea coaſt eat it as a pot-herb, and gather it for ſale, it being much uſed as a pickle.

Sheep and Cows eagerly feed, and are ſaid to grow fat upon it. PENN. *ib.*

375. HERACLE'UM. Hogweed.

Rundle very large; conſiſting of numerous flat *Rundlets*.
EMPAL. *General Fence* many leaves; ſhedding. *Partial Fence* going half way round on the outer ſide; *leaves* from 3 to 7; between ſtrap and ſpear-ſhaped; the outer longer. *Cup* juſt perceptible.
BLOSS. *General*, unequal; irregular in its ſhape. *Florets* nearly all fertile. *Individuals of the centre*; of 5 equal petals; bent and hooked inwards; notched at the end. *Of the circumference*; of 5 unequal petals; the *outer* petals largeſt; with the deepeſt notches; hooked; oblong.
CHIVES. *Threads* 5; longer than the petals. *Tips* ſmall.
POINT. *Seed-bud* beneath; ſomewhat egg-ſhaped. *Shafts* 2; ſhort; near together. *Summits* ſimple.
S. VESS. None. *Fruit* oval; compreſſed; notched; ſcored along the middle on each ſide.
SEEDS. 2; egg-ſhaped; compreſſed; with a leafy edge.
ESS. CHAR. *Fruit elliptical; nicked; compreſſed; ſcored; with a border. Bloſſom diſſimilar; nicked; bent in. Fence ſhedding.*

OBS. In ſome ſpecies the florets in the circumference have only pointals without chives, and produce ſeeds; the central florets have chives without pointals, and are barren. In the *H. Sphondylium* the florets have all chives and pointals. The general fence is ſometimes altogether wanting. In the two Britiſh ſpecies the florets in the centre are compoſed of unequal petals as well as thoſe in the circumference.

HERACLE'UM *Sphondyl'ium*. Leafits with winged clefts,* even. Flowers uniform. LINN. *ſyſt. veg.*—Radiated. *Syſt. nat.* HUDS. ST.—*And improperly changed in the errata and ſubſequent works to uniform.* ST. *Parſnep*

Blackw. 540.—*H. ox.* ix. 16. *row* 1. 1. *f.* 2.—*Dod.* 307, *repr. in Lob. obſ.* 401. 2; *ic.* i. 701. 2, *Ger. em.* 1009, *and cop. in Park.* 953, *and Pet.* 24. 1.—*Park.* 954. 3.—*Matth.* 791.—*Fuchſ.* 53, *cop. in J. B.* iii. 6. 160.—*Trag.* 437. *In the 2 laſt the lower-leaves repreſented as only wing cleft.*

* "Lævibus" oppoſed to "rugoſis" in the *H. auſtriacum*. ST.

Outer

Outer petals of the circumference 4 times as large; thoſe of the centre nearly equal. HALL. ST.—*Stem-leaves* winged, hairy; *leaflts* about 2 pair, jagged, and indented, the odd one cloven into 3. *Stem* furrowed, rough with white hairs. *Leaf-ſtalks* ſpreading out at the baſe into a kind of bags, ſcored, membranaceous, woolly at the edges, and in its younger ſtate ſheathing and incloſing the fruit-ſtalks and rundles. *Florets* of the centre with nearly equal petals. *Florets*, particularly the outer ones, have a horned appearance before they expand. *Tips* greeniſh. *Summits* ſemi-tranſparent. *Seeds* with 3 riſing ridges on each ſide; the leafy border often purpliſh. WITH.

Cow Parſnep. Madnep. Hogweed, in Norfolk.

In Poland and Lithuania, the poor people prepare a liquor from the leaves and ſeeds; which undergoes a fermentation, and is drank inſtead of ale.—The ſtalks, when peeled, are eaten by the Kamſchatkians.——The Ruſſians take the leaf-ſtalks of the root-leaves, peel them, and hang them in the ſun to dry a little; then they tye them in little bundles, and hang them up again till they become yellow: in this ſtate they put them into bags, and a mealy ſubſtance like ſugar forms upon the ſurface of them. This they ſhake off, and treat their gueſts with it as a great delicacy. They likewiſe diſtill an ardent ſpirit from it. *Gmelin. ſibir.* i. *p.* 214. The peelings of the ſtalks are acrid.—The leaves are a favourite food of Rabbits and Hogs. Cows, Goats, and Sheep eat them; but Horſes are not fond of them.

Hedges, meadows, and paſtures. B. July.

jagged

β. (anguſtifolium. HUDS.)

Little-leaves ſpear-ſhaped. ST.

Jacq. auſtr. 174.*—*Pluk.* 63. 3, *cop. in Pet.* 24. 2.—*Park.* 954. 2, *a leaf.—(Barr.* 56, *ſeems to approach more nearly to the common kind.)*

A mere variety. RAY. HALL. Mr. WOODWARD. ST.—And different from the *H. anguſtifol.* HALL.—*Flowers* radiated. HALL. HUDS. ST.—But ſometimes, tho' very rarely, uniform. HUDS. Mr. WOODWARD.—On being cultivated in a garden became var. *α.* HUDS.—I have found the *root-leaves* of this and of *H. Sphondyl.* riſing from the ſame root. *Leaves* winged; *wings* with moſtly 3 lobes; *lower-lobes* long, and ſtanding nearly at right angles give the croſs-like appearance; *lobes* ſtrap-ſpear-ſhaped, deeply and doubly ſerrated. Mr. WOODWARD.

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* This is *H. longifolium* of JACQ. in Syſt. veg. but accords with Pluk. quoted by Linnæus and with my ſpecimens. ST.

Sphondylium majus aliud laciniatis foliis. Park. 953. *Ray syn.* 205.
Hedges. About Harefield. BLACKST.—[Between Okeover and Ashbourne. ST.—Berkhamstead, Hertfordsh. Mr. WOODWARD.]
B. July.

376. LIGUS'TICUM. Lovage.

Rundle of many spokes. *Rundlets* the same.
EMPAL. *General Fence* 7 unequal membranaceous leaves. *Partial Fence* of about 4 membranaceous leaves. *Cup* of 5 teeth; but hardly perceptible.
BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*, petals 5; equal; flat; entire; rolled inwards; and keeled on the inside.
CHIVES. *Threads* 5; hair-like; shorter than the petals. *Tips* simple.
POINT. *Seed-bud* beneath. *Shafts* 2; standing close together. *Summits* simple.
S. VESS. None. *Fruit* oblong; angular; with 5 furrows; divisible into 2.
SEEDS. 2; oblong; glossy; marked on one side with 5 ridges; flat on the other.
ESS. CHAR. *Fruit oblong; with* 5 *furrows on each side. Blossom equal. Petals rolled in; entire.*

LIGUS'TICUM *sco'ticum*. Leaves doubly three-fold.— *scotch*

Penn. tour. ii. 24. *at p.* 205.—*Herm. par.* 227.—*Fl. dan.* 207.—*Pluk.* 96. 2.—*Pet.* 26. 11.

Leaves glossy underneath. LINN.—*Little-leaves* oblong-wedge-shaped, entire below, above irregularly serrated, and sometimes deeply cut. Mr. WOODWARD.

Scottish Sea Parsley.—Rocks and cliffs by the sea side in Scotland and the Western Isles. Near Queen's Ferry. [Near Kinghorn, Scotland. Mr. WHATELY.] B. July.

It is much valued in the Isle of Sky. The root is reckoned a good carminitive, and an infusion of the leaves a good purge for calves. It is besides used as food, either as a sallad, or boiled as greens. *Penn. tour.* 1772. p. 310.

Horses, Sheep, and Goats eat it. Cows refuse it.

(*CURT.) LIGUS'TICUM *cornubien'se*. Leaves doubly compound, cut; root-leaves in threes, spear-shaped, very entire.— *cornish*

Ray 3. *at p.* 209.—*Fet.* 26. 2.

Cornwall Saxifrage.

In Cornwall. Only one ſpecimen is known to exiſt. It has been ſearched for in vain by many induſtrious botaniſts, which has induced ſome to believe that it is now extinct. St. P. July.

377. ANGEL'ICA. Angelica.

Rundle of many ſpokes; nearly globular. *Rundlets* exactly globular.

EMPAL. *General Fence* ſmall; of 3 or 5 leaves. *Partial Fence* ſmall; of 8 leaves. *Cup* with 5 teeth; hardly diſcernible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals, petals* 5; ſpear-ſhaped; rather flat; but a little bent inwards; ſhedding.

CHIVES. *Threads* 5; ſimple; longer than the petals. *Tips* ſimple.

POINT. *Seed-bud* beneath. *Shafts* 2; bent back. *Summits* blunt.

S. VESS. None. *Fruit* roundiſh; angular; ſolid; diviſible into 2.

SEEDS. 2; egg-ſhaped; flat on one ſide and encompaſſed with a border; on the other convex, and furrowed with 3 lines.

ESS. CHAR. *Fruit roundiſh; angular; ſolid; with the ſhafts bent back. Bloſſom equal; petals bowed inwards.*

OBS. In *A. ſylveſtris* general fence often wanting.

wild ANGEL'ICA *ſylveſ'tris*. Leafits equal, egg-ſpear-ſhaped, ſerrated.

Ludw. 178, 179.—*Fuchſ.* 125, *cop. in Trag.* 422, *and J. B.* iii. 6. 144.—*Dod.* 318. 2, *repr. in Ger. em.* 999. 2.—*Ger.* 846. 2.—*Matth.* 1171.—*H. ox.* ix. 3. *row* 2. 2.—*Park.* 940. 2.—*Lon.* i. 227. 2.

Spokes to 40. *Fruit-ſtalks* to 80. *Petals* nearly equal, egg-ſhaped, pointed. *Fruit* with 4 wings and 3 ſcores on each ſide. *Shafts* white, and as the receptacle, at length red. *Seed*, edge red. RELH.—*Stem* ſmooth. *Leaf-ſtalks* channelled on the upper ſurface, below widening into a large membranaceous ſheath incloſing the ſtem. *Fruit-ſtalks* riſing from the ſheaths of the leaf-ſtalks. *Leafits*, ſerratures ending in a ſharp reddiſh point. *Rundlets* ſomewhat flatted. *General Fence* none, or ſometimes, though rarely, of 1

or

or 2 very ſmall, ſlender leaves. *Fencelets* permanent; *leaves* 5 to 12, awl-ſhaped, unequal. *Bloſs.* white, more or leſs tinged with purpliſh red. *Seeds*, border membranaceous, with 3 ridges on the outer ſide. WITH.

Marſhy woods and hedges. P. June. July.

It is warm, acrid, bitter, and aromatic; but the ſpecies cultivated in our gardens poſſeſſing theſe properties in a higher degree, this has been long neglected.—*Papilio machaon* feeds upon it.

Cows, Goats, and Swine eat it. Horſes refuſe it. LINN.—A Horſe eat the flowering ſtem. ST.

378. SI'UM. Skerret.

Rundle different in different ſpecies. *Rundlets* flat and expanding.

EMPAL. *General Fence* many reflected leaves; ſhorter than the rundle; *leaves* ſpear-ſhaped. *Partial Fence* many leaves; ſtrap-ſhaped; ſmall. *Cup* hardly perceptible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*, petals 5; equal; heart-ſhaped; bent inwards.

CHIVES. *Threads* 5; ſimple. *Tips* ſimple.

POINT. *Seed-bud* beneath; very ſmall. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* roundiſh; egg-ſhaped; ſcored; ſmall; diviſible into 2.

SEEDS. 2; nearly egg-ſhaped; convex and ſcored on one ſide; flat on the other.

ESS. CHAR. *Fruit ſomewhat egg-ſhaped; ſcored. Fence of ſeveral leaves. Petals heart-ſhaped.*

OBS. In *S. nodiflorum* the general fence often wanting.

SI'UM *latifo'lium*. Leaves winged. Rundle terminating. LINN.—Little-leaves oblong-ſpear-ſhaped, ſerrated. Rundles terminating. HUDS. *broad-leaved*

Jacq. auſtr. i. 66.—*Fl. dan.* 246, *leaves and flowers.*—*Dod.* 589,* *repr. in Ger. em.* 256. 2, *cop. in H. ox.* ix. 5. 2, *and Pet.* 26. 2.—*Ger.* 200. 1, *cop. in Ger. em.* 256. 1, *Park.* 1240. 1, *J. B.* iii. 6. 175. 1, *and H. ox.* ix. 5. *row* 2. 1.—*Ger.* 200. 3, *cop. in J. B.* iii. 6. 174.†—*Pet.* 26. 1.—*(Jacq. ib.* 67, *referred to by Murr. is moſt undoubtedly S. anguſtifol. as Jacq. has made it.)*

*† Referred to by Linnæus, and exactly reſembles this plant as growing wild, though the other figures are the beſt repreſentation of it as cultivated. ST.

Leafits ſharply ſerrated. HALL. Mr. WOODWARD.—*Leafits* of the *root-leaves* in marſhy places ſometimes deeply cut, and the ſegments of ſuch as are under water ſtrap-ſhaped. HUDS.—*Stem* upright, 5 ft. high, angular, ſcored, hollow, branching; branches aſcending. *Leafits* oppoſite, ſtrap-egg-ſhaped, ſerrated, unequal at the baſe, pointed, the outermoſt with 3 lobes; the lateral lobes running into one. *Rundle* hemiſpherical, uniform. *Fence*, and *fencelets*, leaves unequal, ſtrap-ſhaped, ſomewhat toothed. *Tips* purpliſh. LYONS.—*Leaves* of the *general fence* ſtrap-ſpear-ſhaped, toothed. Mr. WOODWARD.—*Leafits* ſerrated. *Petals* white.

Great Water Parſnep.——Rivers and fens. [In the Moors, near Pitchcroft, Worceſter. Dr. THOMSON jun.—Norfolk, frequent. Mr. WOODWARD.—Iſle of Ely. ST.] P. July. Aug.

Horſes and Swine eat it. Sheep are not fond of it. The roots are noxious to cattle.

narrowleaved SI'UM *anguſtifo'lium*. LINN.*—Leaves winged. Leafits heart-ſhaped, lobed, unequally ſerrated. Rundles on fruit-ſtalks oppoſite the leaves, and terminating. HUDS. —*Little-leaves unequal at the baſe, and the baſe of the upper margin being hollowed out, gives many of them the appearance of half-heart-ſhaped; and thoſe of the upper-leaves ſpear-ſhaped.* ST.

Jacq. auſtr. i. 67.—*Fl. dan.* 247, *leaves and flowers.*—*Park.* 1241. 2.—(*Ger.* 200. 3, *cop. in J. B.* iii. 6. 174, *is S. latifolium, as is evident from its terminating rundles; as is alſo Ger. em.* 256. 2, *as appears from the regular and even ſerratures of the leaves.*—*Jacq. ib.* 66, *referred to by Murr. is moſt undoubtedly S. latifol.*)

General fence, leaves entire, ſerrated, and alſo with winged clefts. HUDS. Mr. WOODW. ST.—*Partial fence*, leaves jagged, as long as the rays. Mr. WOODW.—And in other plants ſpear-ſhaped, entire. ST.

Upright Water Parſnep.

Ditches and rivulets. [Norfolk. Mr. WOODWARD.—Kingſton Pool, near Stafford. ST. WITH.] P. June. July.

It certainly poſſeſſes active properties that ought to be enquired into.

creeping SI'UM *nodiflo'rum*. Leaves winged. Rundles from the boſom of the leaves, ſitting. LINN.—Nearly ſitting, from the ſides of the ſtem. Stem trailing. ST.†

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* The Linnæan character was adoped from Hudſon, who has ſince corrected it as above.—*Foliolis inciſo-ſerratis, umbellis oppoſitifoliis.* ST.

† Foliis pinnatis, umbellis lateralibus ſubſeſſilibus, caule procumbente. ST.

Tourn.

Tourn. 162, *a leaf.*—*H. ox.* ix. 5. 3, *cop. in Pet.* 26. 3.—*(Fl. dan.* 247, *is S. anguſtifolium.)*

General fence often wanting. LINN. ST.—*Stems* creeping. *Rundles*, ſpokes 8 or 9. *Petals* entire, egg-ſhaped, ſlightly bent in, the outermoſt in the florets of the circumference larger. *Fence* falling off before flowering. *Fencelets*, leaves 7. RELH.—*Partial fence*, leaves oval, entire, membranaceous at the edge. Mr. W. ST.—*Little-leaves*, ſerratures even and ſhallow. RETZ. ST.—Egg-ſhaped, pointed, and ſometimes oval and rounded at the end. ST.—*Rundles*, ſome of them oppoſite the leaves. GOUAN.—Never oppoſite the leaves. RETZ.—But in all the ſpecimens of our herbariums they are uniformly oppoſite the leaves. In ſtems indeed not yet fully expanded rundles will appear proceeding from the boſom of the leaves, but on examination ſuch will be found to riſe from a young branch furniſhed alſo with leaves, and oppoſite to the baſe of one of theſe leaves the ſhort fruit-ſtalk of the rundle will be found to proceed. ST.—*Stem* ſcored, angular. *Lower-leaves* with 2, the *upper* with 1 pair of leafits. *Leafits* ſitting. *Rundles* nearly ſitting. *General fence* none. *Partial fence* of 5 or 6 ſpear-ſhaped leaves, bent back. *Petals* white. WITH.

Creeping Water Parſnep.

In rivers and ditches. P. July. Aug.

A young lady 6 years old was cured of an obſtinate cutaneous diſeaſe, by taking 3 large ſpoonfuls of the juice twice a day; and I have repeatedly given to adults 3 or 4 ounces every morning in ſimilar complaints, with the greateſt advantage. It is not nauſeous, and children take it readily if mixed with milk. In the doſes I have given it, it neither affects the head, the ſtomach, nor the bowels. WITH.

SI'UM *inunda'tum*. WIGG.—Creeping. Rundles with *leaſt* 2 ſpokes. ST.

Siſon inundatum, which ſee.

379. SI'SON. Honewort. *(Petiv.)*

Rundle unequal; with fewer than 6 ſpokes. *Rundlets* unequal; with fewer than 10 ſpokes.

EMPAL. *General Fence* 4 leaves; unequal. *Partial Fence* the ſame. *Cup* hardly perceptible.

BLOSS. *General*, uniform. *Florets* all fertile. *Individuals*, equal; of 5 petals; ſpear-ſhaped; flat; but a little bent inwards.

CHIVES. *Threads* 5; hair-like; as long as the petals. *Tips* ſimple.

POINT. *Seed-bud* beneath; nearly egg-ſhaped. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* egg-ſhaped; ſcored; diviſible into 2.

SEEDS. 2; egg-ſhaped; convex and ſcored on one ſide; flat on the other.

ESS. CHAR. *Fruit egg-ſhaped; ſcored. Fence of generally 4 leaves.*

hedge SI'SON *Amo'mum*. Leaves winged. Rundles upright.—

Jacq. hort. iii. 17.—*Blackw.* 442.—*J. B.* iii. 6. 107.—*Fuchſ.* 655, *cop. in Trag.* 461, *and Dod.* 697. 1, *which repr. in Ger. em.* 1016. 1; *and again cop. in Park.* 914. 1, *and H. ox.* ix. 5. 7.

Stem thread-ſhaped, upright, ſcored, ſmooth. *Leaves* winged; *leafits* egg-ſhaped, cut, ſerrated, but the uppermoſt more finely divided. *Rundle* of 4 ſpokes, the 4th in the centre. *Fence* of 3 leaves. *Fencelets* of 5 leaves, very ſmall. LINN.—*Root-leaves* of ſeveral pair of *little-leaves*, the terminating one cloven into 3. *Stem-leaves* from 2 to 3 pair; *upper* leaves of 2 pair, deeply and irregularly cut, the lowermoſt pair winged, and much longer. *General* and *partial rundles* nodding before flowering. Mr. WOODWARD. ST.—*Little-leaves* with generally a lobe-like gaſh on each ſide below the middle. *General rundle*, rays to 7. *General fence* often of 4 leaves. ST.—*Rundles* terminating. *Petals* white.

Baſtard Stone Parſley.

Moiſt Woods and hedges. P. Aug. Sept.

The ſeeds are a mild warm aromatic. They give out their virtues to rectified ſpirit, and tinge it green.

corn SI'SON *ſe'getum*. Leaves winged. Rundles nodding.—

Jacq.

Jacq. ii. 134.—*Ger. em.* 1018, *cop. in Park.* 932, *and H. ox.* ix. 5. *row* 2. 6.

All the leaves with numerous pairs of little-leaves. *Rundle*, ſpokes 3 to 5, very unequal. *Rundlet*, ſpokes 6 or 7, very unequal. Mr. WOODWARD. ST.—*Stem* ſea-green. *Branches* wide-ſpreading. HALL. ST.—*Little-leaves* egg-ſhaped, deeply cut and ſerrated; ſerratures very finely pointed. ST.

Corn Parſley.

Corn fields and hedge ſides in chalk and clay. [Binham, Norfolk. Mr. CROWE.] B. LINN.—A. HUDS.—July.

SI'SON *inunda'tum*. Creeping. Rundles of 2 ſpokes. *water* LINN.—Sometimes bearing only a ſingle rundle. Mr. WOODWARD. ST.

Fl. dan. 89.—*H. ox.* ix. 5. 5, *cop. in Pet.* 26. 4.—*Pluk.* 61. 3.

The ſmalleſt of the umbelliferous plants that I am hitherto acquainted with. LINN.—The *leaves* which grow under water hair-like, thoſe above the ſurface winged. ROYEN.—*Fence* wanting. RELH. ST.——*Upper-leaves* with from 2 to 3 pair of little-leaves; *Little-leaves* cloven into 3. Mr. WOODW.—But in my ſpecimens all the little-leaves jagged as in the figure of Pluk. ST.—*Rundles* on long fruit-ſtalks. HALL. Mr. WOODWARD. ST.—Half as long, and ſometimes longer than the leaves, oppoſite the inſertion of the leaves, though included within their ſheathing leaf-ſtalk. *General fence*, none in my ſpecimens or the figures. *Rundlets* on fruit-ſtalks ſometimes twice as long as the rundle. ST.—Sometimes ſitting, of few flowers. Mr. WOODWARD.

Leaſt Water Parſnep.

In ditches, pools, and ground ſubject to be overflowed. [Near Bungay, Suffolk. Mr. WOODW.—Sides of rivulets on Malvern Chace, Worceſterſhire. Mr. BALLARD.]

SI'SON *verticilla'tum*. Leafits in whorls, hair-like.— *whorled* *Lightf.* 35, *at p.* 1096.—[*Moris. umb. t.* 6. *Lightfoot and Mr. Woodward.*]—*H. ox.* ix. 7. 10.

Leaves, each of the *whorls* conſiſts of 2 oppoſite little-leaves deeply divided into hair-like ſegments. *Rundles*, rays 8 to 10. LIGHTF. ST.

Meadows and paſtures. On the Weſtern Side of Wales and Scotland. P. Aug.

382. OENAN'THE. Dropwort.

Rundle with few ſpokes. *Rundlets* with many very ſhort ſpokes.

EMPAL. *General Fence* many leaves; ſimple; ſhorter than the rundle. *Partial Fence* many leaves; ſmall. *Cup* with 5 awl-ſhaped teeth; permanent.

BLOSS. *General*; of different ſhaped florets; radiated. *Florets* in the circumference barren. *Individuals*; *in the centre* fertile; *petals* 5; nearly equal; heart-ſhaped, but bent inwards; *in the circumference*, with 5 petals; large; unequal; bent inwards; cloven.

CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; awl-ſhaped; permanent. *Summits* blunt.

S. VESS. None. *Fruit* nearly egg-ſhaped; crowned with the cup; diviſible into 2 parts.

SEEDS. 2; ſomewhat egg-ſhaped; convex on one ſide; ſcored; flat on the other; toothed at the point.

ESS. CHAR. *Florets of different ſhapes; thoſe of the centre ſitting; barren. Fruit crowned with the empal. and pointal.*

OBS. In this genus the cup is more evident than in the other plants of the *umbelliferous* tribe, and in ſome of the ſpecies the general fence is often wanting.

water OENAN'THE *fiſtulo'ſa*. Sending forth ſuckers. Stem-leaves winged; thread-ſhaped; hollow.—

Fl. dan. 846.—*Lob. ic.* i. 732. 2, *repr. in Ger. em.* 1060; *cop. in Park.* 1233. 1, *and Pet.* 25. 5.—*J. B.* iii. 6. 192.—*Ger.* 902. 5.

General Fence wanting. LINN.——Or as ſometimes of 1 leaf. RELH. ST.—*General rundle*, ſpokes from 2 to 7. POLLICH. RELH. ST.—To 8. In ſome ſituations it acquires the habit of *O. pimpinelloides*, but the abſence of the general fence affords a ready mark of diſtinction. ST.—*Root* tuberous. *Stem* angular, 1½ foot high, red below. *Leaves* winged; *leafits* ſtrap-ſhaped; *root-leaves*, wings 3-fingered. *Fencelets* compact. *Empal.* with 5 clefts. LYONS.—The firſt rundle is cloven into 3 parts; the others into many; ſo that the plant changes its appearance conſiderably in the courſe of the ſummer. *Petals* white.

Ponds and ditches, frequent. P. July.

Cows and Horſes refuſe it, though from experiments made on purpoſe, it does not appear to be in the leaſt degree noxious to the former. β. leſſer.

β. leſſer. RAY. HUDS

Dod. 590, *repr. in Lob. obſ.* 421; *ic.* i. 732. 1; *and cop. in Park.* 1233. 2, *H. ox.* ix. 7. 8, *and Pet.* 25. 6.—*(Matth.* 869, *cannot be the plant.)*

OENAN'THE *croca'ta.* All the leaves with many clefts, blunt, nearly equal.— *Hemlock*

Phil. tranſ. abr. x. 23, *at p.* 772, *cop. in Blackw.* 575, *and Gent. Mag.* 1747. xvii. *at p.* 322.—*Jacq. hort.* iii. 55.—*Pet.* 25. 7. —*H. ox.* ix. 7. *row* 2. 2.—*Lob. adv.* 326. 2, *cop. in ic.* i. 730. 2, *repr. in Ger. em.* 1059. 4, *Park.* 894. 6, *and J. B.* iii. 6. 193. 2.

Stem yellowiſh red. *Leaves*, ſome winged; but more doubly winged. The *little-leaves* wedge-ſhaped, ſmooth, ſtreaked, jagged at the edges. *Fruit-ſtalks* angular, ſcored. *General Fence* wanting. *Petals* white, ſharp, bent inwards. *Tips* brown. LINN.—*Stem* and *leaves* quite hair-leſs. *Rundles* nearly globular. *Tips* mulberry-coloured. *Shaft* ſometimes reddiſh. *General Bloſſom* not very unequal. WITH.

Dead Tongue.

Watery places, banks of rivers and ditches. [Meadows, near Hanley Hall, Worceſterſhire. Mr. BALLARD.] P. June. July.

The whole of this plant is poiſonous; and Dr. Poultney remarks, that the root is the moſt virulent of all the vegetable poiſons that G. Brit. produces. Many inſtances of its fatal effects are recorded; for which ſee *Phil. Tranſ.* ib. and vol. i. p. 856; *Gent. Mag.* July 1747, March 1755, and Sept. 1758.—An infuſion of the leaves, or 3 tea-ſpoonfuls of the juice of the root taken every morning, effected a cure in a very obſtinate cutaneous diſeaſe; but not without occaſioning very great diſturbances in the conſtitution. *Phil. Tranſ.* lxii. p. 469.

Sheep eat it. Cows and Horſes refuſe it.

OENAN'THE *pimpinelloi'des.* Leafits of the root-leaves wedge-ſhaped, cloven; thoſe of the ſtem entire, ſtrap-ſhaped, very long, undivided.— *Parſley*

Jacq. auſtr. iv. 394.—*Matth.* 867, *cop. in Ger.* 901, *and J. B.* iii. 6. 191. 1.—*Pet.* ii. 25. 8.—*(J. B. ib.* 2, *and Pluk.* 49. 4, *are the figures referred to by Ray and Hudſon, but Linnæus obſerves that that of Pluk. is a bad one. Trew in Blackw. refers it to O. crocata, but the points of the leaves are ſharp.)*

Stem angular, 6 inches high. *Root-leaves* like thoſe of parſley, but thicker, doubly winged, broad; *leafits* cut. *Stem-leaves* leſs compound, ſcarcely doubly winged; *leafits* ſtrap-ſhaped, channelled, very long. *Rundle* unequal. *Fence, general* and *partial*, awl-briſtle-

briſtle-ſhaped. *Bloſs.* white, ſomewhat radiated. LINN.—*Rundlet*, outer rays very long, and their florets barren. HALL. Mr. W. —*Empal.* teeth unequal. *Tips* yellow. *Shafts* upright. WITH.

Slow ſtreams, ponds, and ditches. [Marſhes, near Yarmouth. Mr. WOODWARD.—North Side of Bredon Hill, Worceſterſhire. By the ſides of Hills. NASH.] P. July. Aug.

383. PHELLAN'DRIUM. Horſebane.

Rundle with many ſpokes. *Rundlets* the ſame. *General Fence* none.

EMPAL. *Partial Fence* of 7 leaves; ſharp; as long as the rundlet. *Cup* of 5 teeth; permanent.

BLOSS. *General*, nearly uniform. *Florets* all fertile. *Individuals*; unequal; *petals* 5; tapering; heart-ſhaped; bent inwards.

CHIVES. *Threads* 5; hair-like, longer than the petals. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; awl-ſhaped; upright; permanent. *Summits* blunt.

S. VESS. None. *Fruit* egg-ſhaped; ſmooth; crowned with the cup and ſhafts; diviſible into 2 parts.

SEEDS. 2; egg-ſhaped; ſmooth.

ESS. CHAR. *Florets of the centre leſs. Fruit egg-ſhaped; even; crowned with the cup and ſhafts.*

water PHELLAN'DRIUM *aquat'icum*. Ramifications of the leaves ſtraddling.—

Blackw. 570.—*Dod.* 591, *repr. in Lob. obſ.* 424. 1, *ic.* i. 735. 1, *Ger. em.* 1063, *and cop. in Park.* 933. 6, *and Pet.* 28. 4.—*H. ox.* ix. 7. *row* 1. 7.—*Ger.* 905.

Leaves under the ſurface of the water long and hair-like. Mr. WOODWARD.—*Stem* very thick, hollow, ſcored. *Petals* white. *Water Hemlock.*

Rivers, ditches, and pools. [Cliſton, near Severn Stoke, Worceſterſhire. Mr. BALLARD. ST.] B. June. July.

The ſeeds are recommended in intermittents, and are ſaid to be diuretic, antiſeptic, and expectorant. Doſe from 1 to 3 drams daily. Dr. LANGE.—The leaves are ſometimes added to diſcutient cataplaſms.—It is generally eſteemed a fatal poiſon to Horſes, occaſioning them to become paralytic; but this effect is owing to an inſect, *(Curculio paraplecticus)* which generally inhabits within the ſtems. The uſual antidote is pig dung.—In the winter the roots

roots and ſtem, diſſected by the influence of the weather, afford a very curious ſkeleton or net work.

Horſes, Sheep, and Goats eat it. Swine are not fond of it. Cows refuſe it. *Chryſomela Phellandria*, and the *Gilt Leptura* are found upon the roots, and the *Curculio paraplectícus* within the ſtems.

384. CICU'TA. Cowbane.

Rundle roundiſh; with many equal ſpokes. *Rundlets* roundiſh; with many briſtle-ſhaped ſpokes.

EMPAL. *General Fence* none. *Partial Fence* many leaves; little-leaves briſtly; ſhort. *Cup* ſcarcely evident.

BLOSS. *General*; uniform. *Florets* all fertile. *Individuals*; *petals* 5; egg-ſhaped; nearly equal; bent inwards.

CHIVES. *Threads* 5; hair-like; longer than the petals. *Tips* ſimple.

POINT. *Seed-bud* beneath. *Shafts* 2; thread-ſhaped; longer than the petals; permanent. *Summits* roundiſh.

S. VESS. None. *Fruit* nearly egg-ſhaped; ſlightly furrowed; diviſible into 2.

SEEDS. 2; ſomewhat egg-ſhaped; convex and ſcored on one ſide; flat on the other.

ESS. CHAR. *Fruit nearly egg-ſhaped; furrowed.*

CICU'TA *viroſa*. Rundles oppoſite the leaves. Leaf-ſtalks bordered, blunt.— *water*

Phil. tranſ. abr. x. 23, *at p.* 772.—*Fl. dan.* 208, *leaf and roots.*—*Blackw.* 574. *a. b. c.*—*Gunner* 2.—*Dod.* 589. 3, *repr. in Lob. obſ.* 105. 2, *ic.* i. 208. 2, *Ger. em.* 256. 4, *and cop. in Park.* 1241. 3, *J. B.* iii. 6. 175. 2, *and Pet.* 28. 1.—*H. ox.* ix. 5. 4.

Stem round, hollow. *Leaves* winged; *leafits* ſpear-ſhaped, in threes, ſerratures white at the point. *Rundle* expanding, red at the baſe. *Fencelets* of ſeveral leaves, briſtle-ſhaped, ſhort. *Flowers* white, with chives and pointals. *Shafts* upright, white; in the fruit ſtraddling. *Summits* ſimple. *Fruit* compreſſed, even, lopped, opening tranverſely. LINN.—*Leafits* with 2 and 3 diviſions ſharply ſerrated. *Partial fence*, leaves longer than the rays. Mr. W.—In my ſpecimens rather ſhorter than the rays, unequally ſerrated. ST.—*Stem* ſcored, ſmooth, about 4 feet high, reddiſh towards the bottom. *Leaves*, ſerratures ſometimes brown. *Fruit-ſtalks* ſheathed at the baſe by the leaf-ſtalks. *Receptacle of the ſpokes* reddiſh. *Fencelets* ſhorter than the little ſpokes. *Cup* tolerably diſtinct. *Tips* reddiſh purple, *Shafts* at firſt cloſe and very ſhort, after flowering much

much longer. *Leaves* with about 7 pair of *little-leaves*, which are variouſly divided and indented. *Petals* yellowiſh pale green. WITH. *Long-leaved Water Hemlock.*

Sides of pools and rivers. [Pond 2 miles from Northwich on the ſide of the road to Cheſter; and in Nottingham Park. Mr. WOOD.—Near Norwich. Mr. PITCHFORD.—Near Yarmouth. Mr. WOODW.—Kingſton Pool, near Stafford. ST.—Mr. Slaney's Pool Dam, Hatton, Shropſhire. WITH.] P. July. Aug.

This is one of the rankeſt of our vegetable poiſons. Numerous inſtances are recorded of its fatality to the human ſpecies in a treatiſe upon it by *Wepfer* and *Haller's hiſt. helv. n.* 781. See alſo an account of its deleterious effects in the *Phil. tranſ. abr.* x.

Early in the ſpring, when it grows in the water, Cows often eat it, and are killed by it; but as the ſummer advances, and its ſcent becomes ſtronger, they carefully avoid it. Though a certain and fatal poiſon to Cows, Goats devour it greedily and with impunity. Horſes and Sheep eat it with ſafety.

385. ÆTHU'SA. Cicely.

Rundle expanding; the inner ſpokes gradually ſhorter, and thoſe in the centre the ſhorteſt of all. *Rundlets* ſmall; expanding.

EMPAL. *Partial Fence* with 3 or 5 leaves; going half way round upon the outer ſide; ſtrap-ſhaped; very long; pendant. *Cup* hardly perceptible.

BLOSS. *General*, nearly uniform. *Florets* all fertile. *Individuals*; *petals* 5; unequal; heart-ſhaped; but bent inwards.

CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* roundiſh-egg-ſhaped; ſcored; diviſible into 2.

SEEDS. 2; roundiſh; ſcored; on the other ſide, which is about a third part, flat.

ESS. CHAR. *Fencelets going half way round; of* 3 *leaves; pendant. Fruit ſcored.*

fool's ÆTHU'SA *Cyna'pium.* All the leaves alike.—*Curt.* i. 6.—*Ger. em.* 1061. 1, *cop. in Park.* 933. 2, *and Pet.* 28. 3, *rundle but juſt unfolded.—Blackw.* 517, *fences too ſhort.—H. ox.* ix. 7. *n.* 2, *fig.* 1*ſt.—(J. B.* iii. 6. 180, *ſeems to be a different plant.—Ger.* 905. 1, *not the plant.)*

At

At once diſtinguiſhed by its *fencelets*. RELH.—*Stem* ſlightly furrowed. *Leaves* doubly winged; *leafits* divided into 3 ſegments, which are again deeply cloven into 3 or 5. *Rundle*, ſpokes often 18 or more. WITH.—*Stem* branched. *Leaves* ſmooth, gloſſy. *Petals* whitiſh. *Seeds* very large.

Fool's Parſley. Leſſer Hemlock.

Corn fields, and kitchen gardens. A. Aug. Sept.

This plant, from its reſemblance to common parſley, has ſometimes been miſtaken for it, and when eaten it occaſions ſickneſs. If the curled-leaved parſley only was cultivated in our gardens, no ſuch miſtakes would happen.

Cows, Horſes, Sheep, Goats, and Swine eat it. It is noxious to Geeſe.

ÆTHU'SA *Me'um*. All the leaves divided into many briſtle-ſhaped ſegments.— *Spignel*

Ludw. 66, *as cultivated.—Jacq. auſtr.* iv. 303, *as growing wild.—Cluſ.* ii. 198. 2, *repr. in Dod.* 305, *Lob. obſ.* 449. 2, *ic.* i. 777. 1, *Ger. em.* 1052. 1, *and cop. in Park.* 888. 1.—*H. ox.* ix. 2. *row* 1. *fig.* 2.—*Blackw.* 525.—*Matth.* 24, *cop. in Ger.* 895.—*Tourn.* 165, *leaf and parts of fructification.—Fuchſ.* 231, *cop. in J. B.* iii. 6. 11.—*Trag.* 445.

General fence none, or but rarely, of 1 leaf. *Partial fence* from the ſide as in this genus. *Petals* white. LINN.

Athamanta Meum. Sp. pl. which ſee.—*Liguſticum Meum*. CRANTZ.—*Seſeli Meum*. SCOP.—*Meum athamanticum*. JACQ.

Spignel. Spicknel. Meu. Bald or Bawd-money.

Mountainous paſtures in the northern counties. Near Dolgehle, Merionethſhire. P. May.

The roots and ſeeds are aromatic and acrid. They have been uſed as ſtomachics and carminitives. Sometimes they are given to cure tertians; and there is no doubt but they will often anſwer as well as pepper, and other acrid aromatics. WITH.

386. CORIAN'DRUM. Coriander.

Rundle of few ſpokes. *Rundlets* of many. *General Fence* for the moſt part wanting; but ſometimes there is a ſingle leaf.

EMPAL. *Partial Fence* 3 ſtrap-ſhaped leaves; going half way round. *Cup* with 5 teeth; ſtanding out.

BLOSS. *General*; irregular in its ſhape and unequal. *Florets in the centre* barren. *Individuals of the centre* with both chives and pointals; *petals* 5; equal; heart-ſhaped; but bent inwards. *Individuals of the circumference* with both chives and pointals. *Petals* 5; heart-ſhaped; but bent inwards; the outermoſt largeſt; divided; thoſe on each ſide of it moſt deeply divided.

CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; diſtant. *Summits* in the florets of the circumference roundiſh.

S. VESS. None. *Fruit* globular; diviſible into 2.

SEEDS. 2; hemiſpherical; concave.

ESS. CHAR. *Bloſſom radiated. Petals bent in, and nicked. General Fence of 1 leaf. Partial Fence going half way round. Fruit ſpherical.*

common CORIAN'DRUM *ſati'vum.* Fruit globular.—*Ludw.* 37.—*Blackw.* 176.—*Fuchſ.* 345, *cop. in J. B.* iii. 6. 89.—*Dod.* 302. 1 *and* 2, *repr. in Lob. obſ.* 403, *ic.* i. 705. 2, *Ger. em.* 1012. 1 *and* 2, *and cop. in Park.* 918. 1 *and* 2.—*Ger.* 859.—*Matth.* 763.—*Trag.* 115.—*Lon.* 79.

Petals white.

Corn fields, road ſides, and dunghills. A. June. July.

The leaves have a ſtrong diſagreeable ſcent. The ſeeds are grateful to the taſte, and incruſted with ſugar are ſold by the confectioners under the name of Coriander comfits. The Edinburgh college uſe them as correctors in the bitter infuſion and the preparations of ſenna, nothing ſo effectually covering the diſagreeable taſte of that medicine. They have been conſidered as ſuſpicious if not deleterious, but I have known 6 drams of them taken at once, without any remarkable effect. WITH.

387. SCAN'DIX.

387. SCAN'DIX. Shepherds-needle.

Rundle long; with few ſpokes. *Rundlets* with more. *General Fence* wanting.

EMPAL. *Partial Fence* of 5 leaves; as long as the rundlets. *Cup* not diſtinguiſhable.

BLOSS. *General*; irregular in its ſhape and unequal. *Florets in the centre* barren. *Individuals*; *petals* 5; heart-ſhaped; bent inwards; the inner ones ſmall; the outer ones larger.

CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.

POINT. *Seed-bud* beneath; oblong. *Shafts* 2; awl-ſhaped; diſtant; permanent; as long as the ſmalleſt petal. *Summits* in the unequal florets blunt.

S. VESS. None. *Fruit* awl-ſhaped; very long; diviſible into 2.

SEEDS. 2; awl-ſhaped; convex and furrowed on 1 ſide; flat on the other.

ESS. CHAR. *Bloſſom radiated. Fruit awl-ſhaped. Petals nicked. Florets of the centre often with only chives.*

OBS. In ſome ſpecies the florets of the centre are abortive. Number of the leaves of the *fencelets* uncertain.

SCAN'DIX *odora'ta*. Seeds furrowed; angular.— *ſweet*

Jacq. auſt. v. *app.* 37.—*H. ox.* ix. 10. 1.—*Dod.* 701. 1, *repr. in Lob. obſ.* 423. 2, *ic.* i. 734. 1, *Ger. em.* 1039. 3, *and cop. in Park.* 935. 1, *and Ger.* 882. 2.—*Blackw.* 243.—*(Matth.* 1169, *is not the plant.)*

Leaves trebly winged; *little-leaves* with winged cleſts; *ſegments* deeply and ſharply ſerrated. *Seeds* longer than the rundlets. Mr. WOODWARD and ST.—*Stem* ſcattered with ſoft hairs. *Leaves* hairy underneath. *Rundles* on fruit-ſtalks, both lateral, and terminating. *Seeds* of a ſweet agreeable taſte. Whole *plant* of an aromatic ſcent. ST.

Cerefolium magnum ſive Myrrhis. GER. em. 1039.—*Myrrhis major vulgaris, ſive Cerefolium magnum.* PARK.

Sweet Cicely. Great Sweet Chervil. Sweet Fern.

Orchards and waſte places, but always near houſes. LIGHTF. ST.—And hedges. HUDS.—[Banks of the Derwent above Chatſworth. Mr. WHATELY.—Pretty common near Leeds, and certainly wild. Mr. WOOD.—Tixall, near Stafford. WITH.—In an orchard at the top of Souſton's Roche, near Shelſley Walſh, Worceſterſhire. Mr. BALLARD. ST.]

The

The ſeeds are uſed in the north of England for poliſhing and perfuming oak floors and furniture. Mr. WOODWARD.

common SCAN'DIX *Pec'ten.* Seeds with a very long bill.—*Jacq. auſtr.* iii. 263.—*Fl. dan.* 844.—*Dod.* 701. 2, *repr. in Lob. obſ.* 419. 2, *ic.* i. 726. 2, *Ger. em.* 1040. 1, *and cop. in Park.* 916. 1.—*J. B.* iii. 6. 71. 2.—*H. ox.* ix. 11. *row* 2. 1.—*Matth.* 527, *cop. in Ger.* 884.

Seeds thread-ſhaped, containing a kernel at the baſe. LINN.—*Stem* a foot high and upwards, upright, branching, round, ſomewhat zigzag. *Leaves* ſmooth, doubly winged; *leafits* alternate, with many clefts; ſegments ſtrap-ſhaped, pointed. *Leaf-ſtalks* channelled, embracing the ſtem at the baſe, fringed. *Rundle* often ſitting, ſpokes 2 or 3. *Rundlets*, ſpokes 10. *Fencelets*, leaves with many clefts, ſerrated, pointed. *Bloſs.* in the centre, regular, with only chives; in the circumference with only pointals, irregular. LYONS.—*Bill* flatted, 2-edged; angles with fine prickles pointing upwards. Mr. HOLLEFEAR.—*Stems* a little hairy, ſcored. *Leaves* doubly winged; *leafits* with winged clefts. *Leaf-ſtalks* and *fruit-ſtalks* ſmooth. *Fruit* flatted at the baſe, finely ſerrated at the edges. The glandular *receptacle* crowning the *ſeed-bud* of a fine purple. By carefully dividing the *ſeed-bud* after it has ſhot out an inch or more in length, a tube continued from the ſhafts down to the ſeeds may be diſcovered. *Petals* white. WITH.

Shepherds Needle. Crake Needle. Venus Comb.

Corn fields. A. June. July.

Chervil SCAN'DIX *Cerefo'lium.* Seeds gloſſy, egg-awl-ſhaped. Rundles lateral, ſitting. LINN.—*Often on fruit-ſtalks from a line to an inch long.* ST.

Jacq. auſtr. iv. 390.—*Fuchſ.* 216, *cop. in J. B.* iii. 6. 75, *Dod.* 700. 2, *and abridged in Trag.* 471.—*Ger. em.* 1038. 1.—*Matth.* 526.—*Ger.* 882. 1.—*H. ox.* ix. 11. *row* 1. 1.—*Lonic.* 1. 238.—*Blackw.* 236.

Florets all fertile. MŒNCH. ST.—*Stem* ſmooth, but beſet (towards the baſe of the joints) with an almoſt imperceptible downineſs. *Leaf-ſtalks* ſheath-like, with a woolly fringe at the edge. Sometimes a *general fence* of 1 leaf, bent back. CRANTZ. ST.—*Leaves* of an exceedingly delicate texture, edges and mid-rib ſlightly hairy. *Rundles* ſometimes from the forks of the ſtem; *ſpokes* woolly, generally 4, but ſometimes 3 and 5; thoſe of the *rundlets* 10 and 12. *General fence* leaf, ſtrap-ſhaped. *Bloſs.* white. *Seeds* black, ſmooth, each with two blunt ridges. The whole plant if rubbed between the fingers gives out an agreeable aromatic ſcent. ST.

Cere-

Cerefolium vulgare ſativum. GER. em. 1038.
Common Chervil.

[Found near Worceſter growing in conſiderable plenty in the hedge on the ſouth eaſt ſide of the Briſtol road, juſt beyond the Turnpike, May 1775.—And in the hedges in Upper and Lower Old Swinford, though not to be diſcovered in any of the neighbouring gardens. I believe it like the *S. odorata* to be only a naturalized plant, as Linnæus informs us it is in Sweden. ST.]

A. May.

It is cultivated in our gardens as a pot-herb, and for ſallads. It is ſlightly aromatic and aperient.

Cows are extremely fond of it. Sheep and Goats eat it. Horſes refuſe it.

SCAN'DIX *Anthriſ'cus.* Leaves egg-ſhaped, rough with hair. Bloſſoms uniform. Stem ſmooth.— *rough*

Curt. i. 3.—*Jacq. auſtr.* ii. 154.—*Fl. dan.* 863.—*Pet.* 27. 12.—*H. ox.* ix. 10. *row* 1. 2.—*J. B.* iii. 6. 182. 1.

Stem a cubit high, upright, branching, round, tubular, ſcored, ſmooth; knots rather ſwoln. *Leaves* winged with an odd one, hairy; wings oppoſite, 4 on each ſide, winged; leafits cloven, pointed. *Leaf-ſtalks* channelled, woolly, and embracing the ſtem at the baſe: thoſe on the ſtem very ſhort. *Fruit-ſtalks* oppoſite to the leaves. *Rundle*, ſpokes generally 3; *rundlets*, ſpokes 3, 4, and 5 rays. *Fenceleaves*, leaves ſpear-ſhaped, awn-pointed, permanent, ſometimes 5. *Florets*, all with chives and pointals. *Petals* nearly equal. *Seeds* egg-ſhaped, rough with hairs hooked upwards. *Shafts* upright. LYONS.—*Rundles* on fruit-ſtalks, but ſometimes ſitting; *fruit-ſtalks* ſmooth; *ſpokes* ſmooth, from 2 to 5. *Rundlets*, ſpokes ſometimes only 2. Haller and Scopoli have conſidered it as a *Caucalis*, but ſuch a diſpoſition ſeparates it from the *S. Cerefolium*, to which it is moſt cloſely allied both in habit and ſtructure. *Petals* white. ST.

Rubbiſh, road ſides. A. May. June.

Cows, Goats, and Sheep eat it.

388. CHÆROPHYL'LUM. Chervil.

Rundle expanding. *Rundlets* with nearly the ſame number of ſpokes.

EMPAL. *General Fence* none. *Partial Fence* of about 5 leaves; ſpear-ſhaped; concave; reflected; nearly as long as the rundlets. *Cup* not diſcernible.

BLOSS. *General*; pretty uniform. *Florets in the centre* generally barren. *Individuals*; *petals* 5; heart-ſhaped; bent inwards; flattiſh; with a ſharp point bending inwards; the *outermoſt* petals rather the largeſt.

CHIVES. *Threads* 5; ſimple; as long as the rundlet. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* oblong-egg-ſhaped; taper; ſmooth; diviſible into 2.

SEEDS. 2; oblong; growing ſmaller upwards; convex on one ſide; flat on the other.

ESS. CHAR. *Fence bent back*; *concave*. *Petals heart-ſhaped*; *bent in*. *Fruit oblong*; *ſmooth*.

OBS. *Seeds of the centre* often barren. Figure of the *fruit* variable.

Cow-weed CHÆROPHYL'LUM *ſylveſ'tre*. Stem ſmooth, ſcored, a little ſwoln at the knots. LINN.—*Smooth to the touch, but generally woolly. Leſſer branches ſmooth.* ST.

Curt. iv. 46.—*Jacq. auſtr.* ii. 149.—*H. ox.* ix. 11. 5.—*Fuchſ.* 525.—*Pet.* 25. 2.—*Lonic.* i. 238.

Stem nearly furrowed. *General fruit-ſtalk* round. *Petals* entire, flat, the outer larger. *Rundle* ſomewhat radiated. LINN.—*Stem* when fully grown generally beſet with a white downineſs, but ſometimes ſmooth. *Fencelets*, leaves egg-ſpear-ſhaped, hairy at the edge. *Bloſſom* at firſt yelloviſh white, but growing whiter when farther advanced. *Seeds* gloſſy, not furrowed, or ſcored. CRANTZ. ST.—*Root* generally branched. *Stem* moſtly woolly. *Rundles* before their expanſion nodding; *ſpokes* ſmooth. *Fencelet* twice as ſhort as the rundlet. *Petals* flat, inverſely egg-ſhaped, thoſe of the outer florets of each rundlet ſomewhat inverſely heart-ſhaped, and larger. CURT.—*Rundles* when in bloſſom convex, in fruit flat. ST.—*Flowers in the centre of each rundlet* often barren. Inner *petals* gradually ſmaller. *Shafts* ſcarcely riſing above the ſurface of the receptacle while in bloſſom, when in fruit expanding. ST.

Joints

Joints of the *ſtem*, *leaf-ſtalks*, and *fencelets* ſometimes with a purpliſh tinge. *Shafts* permanent. WITH.

Wild Cicely. Cow-weed. Cow Parſley.

Hedges, orchards, and paſtures.

P. LINN. CRANTZ. CURT. A. HUDS. Apr. May. June.

The roots eaten as parſneps have been found poiſonous. The rundles afford an indifferent yellow dye; the leaves and ſtems a beautiful green. Its preſence indicates a fruitful ſoil.

Neither Horſes, Sheep, or Goats are fond of it. Cows and Swine refuſe it. LINN.—A horſe eat the young leaves. ST.—Cows and Rabbits are fond of it. In ſome parts of the kingdom, in times of ſcarcity, it is uſed as a pot-herb. CURT.—Cows are ſo fond of it, that when a paſture is over-run with it, as is often the caſe about Dudley, they always turn them in to eat it up. Mr. WAINWRIGHT.

CHÆROPHYL'ŁUM *tem'ulum*. Stem rough, ſwoln at the knots.— *wild*

Jacq. auſtr. i. 65.—*Ger.* 867, *cop. in Ger. em.* 1038. 2, *and Park.* 915.—*Pet.* 25. 3.—*H. ox.* ix. 10. 7.—*J. B.* iii. 6. 70. 2 *and* 1.

Rundles before flowering drooping. *Stem* but little furrowed; marked with purple ſpots, and ſet with white hairs which ſtand out. *Rundlets* in the centre barren. LINN.—*Stem* 1 or 2 cubits high, hairy, rough, ſolid. *Leaves* hairy, very finely winged; wings winged; leſſer wings half winged, gradually decreaſing. *Fence* wanting, or of 1 to 4 leaves. *Fencelet* of 1 leaf, with 6 to 8 cleſts. *Rundles* but few. *Petals* cloven. *Seeds* tawny, obſcurely ſcored. *Petals* very white. RELHAN.

Wild Chervil.

Hedges. A. July. Aug.

Cows and Sheep refuſe it. LINN. —— A horſe eat the young leaves. ST.

389. IMPERATO'RIA. Maſterwort.

EMPAL. *General Rundle* expanded; flat; *partial* unequal. *General Fence* none; *partial* of 1 or 2 leaves; very thin; nearly as long as the rundlet. *Cup* indiſtinct.
BLOSS. *General*; uniform. All the *florets* fertile. *Individuals*; *petals* 5; bent in; nicked; nearly equal.
CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2; bent back. *Summits* blunt.
S. VESS. None. *Fruit* roundiſh; compreſſed; bulging in the middle; bordered; diviſible into 2.
SEEDS. 2; egg-ſhaped; marked on the outſide with 2 furrows; edged with a broad margin.
ESS. CHAR. *Fruit roundiſh; compreſſed; bulging in the middle; bordered at the edge. Petals bent in; nicked.*

common IMPERATO'RIA *Oſtru'thium.*—

Fuchſ. 763, *cop. in J. B.* iii. 6. 137.—*Blackw.* 279.—*Park.* 942.—*Trag.* 433.—*Matth.* 775.—*Lonic.* i. 228. 2.—*Cluſ.* ii. 194. 2, *repr. in Dod.* 320. 1, *Lob. obſ.* 398. 1, *ic.* 700. 1, *Ger. em.* 1001. 1.—*H. ox.* ix. 4. *row* 1. 1.—*Garid.* 55.

Found by Mr. Lightfoot on the banks of the Clyde, particularly about Arden Caple, Iſle of Bate, near Mount Stewart. [Near Bridgnorth, but in a ſituation that would allow of its being an outcaſt of a garden. WITH.] P. June.

Root warm and aromatic; a ſudorific, diuretic, and ſialagogue; recommended in dropſy, debilities of the ſtomach and bowels, and an infuſion of it in wine is ſaid to have cured quartans that have reſiſted the bark. ST.

392. PASTINA'CA.

392. PASTINA'CA. Parſnep.

Rundle of many ſpokes; flat. *Rundlets* of many ſpokes. *Fences* none.

EMPAL. *Cup* hardly perceptible.

BLOSS. *General*; uniform. *Florets* all fertile. *Individuals*; *petals* 5; ſpear-ſhaped; entire; rolled inwards.

CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.

S. VESS. None. *Fruit* oval; compreſſed and flat; diviſible into 2.

SEEDS. 2; oval; nearly flat on each ſide; bound round with a border.

ESS. CHAR. *Fruit elliptical*; *compreſſed*; *flat*. *Petals rolled in*; *entire*.

PASTINA'CA *ſati'va*. Leaves ſimply winged.— *common*

α. wild.

Fuchſ. 753, *cop. in J. B.* iii. 6. 149, *H. ox.* ix. 16. 2.—*Matth.* 776.—*Ger.* 856.

Stem 2 or 3 cubits high, upright, ſtiff, angular, downy, hollow, branching. *Leaf-ſtalks* downy. *Leafits* very ſoft, ſerrated, often with 3 lobes. *Rundle*, ſpokes 10 and upwards. *Rundlets*, ſpokes 20 and upwards. *Bloſſom* yellow. RELHAN.

Borders of ploughed fields, in limeſtone, [and Marle. ST.]

B. July.

β. Leaves broader. garden

Fuchſ. 751, *cop. in Dod.* 680. 2, *repr. in Ger. em.* 1025, *and cop. in J. B.* iii. 6. 150.—*Ger.* 870. 2.—*Matth.* 747; *cop. in Ger.* 870. 1; *and alſo in Dod.* 680. 1, *which repr. in Lob. obſ.* 407. 2, *ic.* i. 709. 2, *Ger. em.* 1025. 1, *and cop. in Park.* 944.—*(Trag.* 440, *ſeems to be Daucus Carota.)*

The roots when cultivated are ſweeter than carrots, and are much uſed by thoſe who abſtain from animal food in Lent: they are highly nutritious. In the north of Ireland they are brewed, inſtead of malt, with hops, and fermented with yeaſt. The liquor thus obtained is agreeable. The ſeeds contain an eſſential oil, and will often cure intermittent fevers.

Hogs are fond of the roots, and quickly grow fat with them.

393. SMYR'NIUM. Alexanders.

Rundle unequal; daily increaſing. *Rundlets* upright. *Fence* none.

EMPAL. *Cup* hardly perceptible.

BLOSS. *General*; uniform. *Florets* in the centre barren. *Individuals*; *petals* 5; ſpear-ſhaped; keeled underneath; ſlightly bent inwards.

CHIVES. *Threads* 5; ſimple; as long as the petals. *Tips* ſimple.

POINT. *Seed-bud* beneath. *Shafts* 2; ſimple. *Summits* 2; ſimple.

S. VESS. None. *Fruit* nearly globular; ſcored; diviſible into 2.

SEEDS. 2; creſcent-ſhaped; convex on one ſide, and marked with 3 angles; flat on the other.

ESS. CHAR. *Fruit oblong*; *ſcored*. *Petals taper-pointed*; *keeled*.

common SMYR'NIUM *Oluſa'trum*. Stem-leaves 3-fingered; on leaf-ſtalks; ſerrated.—

Ger. 864. 2.—*Trag.* 436, *an improved copy of Lonic.* i. 237. 2.—*Blackw.* 408.—*J. B.* iii. 6. 126, *foliage.*—*Dod.* 698. 1, *repr. in Lob.* i. 708. 2, *Ger. em.* 1019, *and cop. in Park.* 930. 1.—*Pet.* 24. 1.—*H. ox.* ix. 4. *row* 2. *n.* 1. *fig.* 3*d.*—(*Fuchſ.* 760, *is a different plant, as is evident from its general fence.*—*Matth.* 773, *cop. in Pet.* 24. 12, *has alſo a general fence.*)

Root-leaves twice 3-fingered. *Uppermoſt ſtem-leaves* oppoſite, 3-fingered. *Sheaths of the leaves* torn and fringed. *Fencelets* very ſhort. *Flowers of the centre* with only chives, thoſe of the circumference with chives and pointals. LINN.—*Bloſs.* irregular, of a whitiſh greeniſh hue, RELHAN.

Aliſſanders.

Ditches and rocks on the ſea coaſt. About Scarborough Caſtle, Deptford, Batterſea, Vauxhall, and Nottingham. [Almoſt covers the ſouth weſt end of Angleſea. PENN. *wales* ii. 253.—Bungay, Suffolk. Mr. WOODW.—Under the walls of York. Mr. WOOD.—Between Great Comberton and Wollerſhill, under hedges near the Avon, Worceſterſhire. NASH.—Found by the Rev. Mr. Welles at Hill Croome, Worceſterſhire. Mr. BALLARD. ST.—And Pirton, plentifully. Mr. HOLLEFEAR.] B. May. June.

It

It was formerly cultivated in our gardens, but its place is now better ſupplied by celery.—It is boiled and greedily eaten by ſailors returning from long voyages, who happen to land at the ſouth weſt corner of Angleſea. PENNANT.

394. ANE'THUM. Dill.

Rundle of many ſpokes. *Rundlets* the ſame. *Fences* none.
EMPAL. *Cup* hardly perceptible.
BLOSS. *General*; uniform. *Florets* all fertile. *Individuals*; *petals* 5; rolled inwards; entire; very ſhort.
CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2; placed cloſe together; but not very diſcernible. *Summits* blunt.
S. VESS. None. *Fruit* nearly egg-ſhaped; compreſſed; ſcored; diviſible into 2.
SEEDS. 2; ſomewhat egg-ſhaped; convex and ſcored on one ſide; flat on the other.
Ess. CHAR. *Fruit nearly egg-ſhaped; compreſſed; ſcored. Petals rolled in; entire.*

ANE'THUM *Foenic'ulum*. Fruit egg-ſhaped.— *Fennel*
Sheldr. 15.—*Tourn.* 164, *a leaf.*—*Dod.* 297, *repr. in Lob. obſ.* 448, *ic.* i. 775. 2, *Ger. em.* 1032, *Park.* 884.—*Blackw.* 288.—*H. ox.* ix. 2. *row* 1. 1.—*Lonic.* 234, *foliage.*—*Fuchſ.* 501, *cop. in Trag.* 448, *and J. B.* iii. 6. 3.—*Ger.* 877. 1.
Seeds not bordered with a membranaceous margin. LINN.—*Stem* 2 cubits high. *Leaves* hair-like. *Petals* yellow. RELH.
Common Fennel. Finckle.
Chalk Cliffs. [Near Marazion, Cornw. plentiful. Mr. WATT. Nottingham Caſtle. Mr. WHATELY.—Near Spetchly, Worceſterſhire. ST.] B. July. Aug.
β. Cultivated in gardens. *garden*
Sweet Fennel.
The tender buds are uſeful in ſallads.——The leaves boiled are uſed in ſauce for ſeveral kinds of fiſh, and eaten raw with pickled fiſh.—In Italy the ſtalks are blanched as a winter ſallad.—The ſeeds abound with an eſſential oil, which is carminitive and diuretic, but not heating.—The *Papilio machaon* feeds upon it.

395. CA'RUM. Caraway.

Rundle with 10 ſpokes; long; and often unequal. *Rundlets* crowded. *General Fence* often of 1 leaf; *partial* none.

EMPAL. *Cup* hardly perceptible.

BLOSS. *General*; uniform. *Florets in the centre* barren. *Individuals*; unequal. *Petals* 5; unequal; blunt; heart-ſhaped; bent inwards at the end.

CHIVES. *Threads* 5; hair-like; as long as the petals; ſhedding. *Tips* very ſmall; roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; very ſmall. *Summits* ſimple.

S. VESS. None. *Fruit* oblong-egg-ſhaped; ſcored; diviſible into 2.

SEEDS. 2; oblong-egg-ſhaped; convex on one ſide, and ſcored; flat on the other.

ESS. CHAR. *Fruit egg-oblong; ſcored. Fence of* 1 *leaf. Petals keeled; bent in; nicked.*

OBS. Some of the florets in the centre have neither chives nor pointals.

common CA'RUM *Ca'rui.*

Ludw. 156.—*Jacq. auſtr.* iv. 393.—*Tourn.* 160. 3, *leaf.*—*Blackw.* 529.—*Ger.* 879, *cop. in H. ox.* ix. 9. *row* 2. 1.—*Pet.* 26. 1.—*Dod.* 299. 2, *repr. in Lob. obſ.* 418. 1, *ic.* i. 724. 1, *Ger. em.* 1034, *and cop. in Park.* 910.—*(Matth.* 755, *has egg-ſhaped leafits; and Fuchſ.* 396, *cop. in Trag.* 455, *and J. B.* iii. 6. 69, *ſeems to me a different plant.)*

Stem 1 to 1½ cubit high, ſolid, ſmooth, with expanding branches. *Leaves* long, ſmooth, wings in pairs; the firſt little wings croſs-wiſe; ſegments flat, long, pointed. *Leaf-ſtalk* long, narrow, keeled. *Rundles* terminating. *Bloſſom* white or reddiſh.

RELH.—*Plant* quite ſmooth. *Stems* furrowed. *Leaves* doubly compound; *leafits* in ſixes, in a ſort of whorl, 2 of them longer; ſegments terminating in a reddiſh ſemi-tranſparent ſubſtance. *General fence* from 1 to 5 leaves. *Rundle*, ſpokes 9 to 12. *Florets* all fertile. *Tips* yellowiſh. *Petals* and *ſhafts* ſlightly tinged with red.

WITH.

Meadows and paſtures. [Near Bury. Mr. CULLUM.]

B. May. June.

Parkinſon ſays, the young roots are better eating than parſneps. —The tender leaves may be boiled with pot-herbs. —The ſeeds

are

are uſed in cakes; incruſted with ſugar are called Caraway Comfits, and are diſtilled with ſpirituous liquors for the ſake of the flavour they afford.—The ſeeds were formerly recommended by Dioſcorides to pale-faced girls, and in more modern days their uſe in that caſe is not forgotten.—They are no deſpicable remedy in tertian agues.——They abound with an eſſential oil, which is antiſpaſmodic and carminitive.—Sheep, Goats, and Swine eat it. Cows and Horſes are not fond of it.

396. PIMPINEL'LA. Aniſe.

Rundle of many ſpokes. *Rundlets* of ſtill more. *Fences* none.

EMPAL. *Cup* not very diſcernible.

BLOSS. *General*; nearly uniform. *Florets* all fertile. *Individuals*; *petals* 5; nearly equal; heart-ſhaped; but bent inwards.

CHIVES. *Threads* 5; ſimple; longer than the petals. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; very ſhort. *Summits* nearly globular.

S. VESS. None. *Fruit* oblong-egg-ſhaped; diviſible into 2.

SEEDS. 2; oblong; narrow towards the point; convex and ſcored on one ſide; flat on the other.

Ess. CHAR. *Fruit egg-oblong. Petals bent in. Summits nearly globular.*

PIMPINEL'LA *Saxif'raga*. Leaves winged. Leafits of the root-leaves roundiſh; thoſe of the upper-leaves ſtrap-ſhaped. *Saxifrage*

Jacq. auſtr. iv. 395.—*Fl. dan.* 669.—*Blackw.* 472.—*Cluſ.* ii. 197. 2, *repr. in Dod.* 315. 2, *Lob. obſ.* 413. 1, *ic.* i. 719. 2, *Ger. em.* 1044. 2, *and cop. in Park.* 947. 4.—*H. ox.* ix. 5. 7, *a ſingle leaf.*

Stem a cubit high and upwards, downy, ſcored, forked. *Rundles* and *rundlets*, ſpokes 8 to 20. *Bloſſom* yellowiſh white. *Shafts* permanent. RELHAN.

Bipinella ſive Saxifraga, &c. GER. em. 1044. (ST.)

Small Burnet Saxifrage.

β. LINN. All the leaves entire. ST. round-leaved

Ger. 887. 1 *and* 2, *which laſt cop. in J. B.* iii. 6. 111. 2.—*H. ox.* ix. 5. 6.—*Trag.* 466.—*Fuchſ.* 609, *cop. in J. B. ib.* 1.—*Matth.* 1032,

γ. Root-leaves

fine-leaved γ. Root-leaves (alſo) jagged. LIGHTF. ST.—Leafits with many diviſions; ſegments ſomewhat hook-like, pointed. RETZIUS—It ſcarcely deſerves the diſtinction even of a variety. Root-leaves of both ſorts frequently riſing from the ſame root. Mr. WOODW.

Retz. iii. 2.—*Pet.* 26. 8.—[*Moris. umb. t.* 5, *an excellent figure.* Mr. WOODWARD.]

P. diſſecta. RETZ. obſ. iii. 46, correſponds with my ſpecimens, and appears to me to be a variety of *P. Saxifraga*, and not the *P. Saxifraga major degener H. ox.* III. *f.* 9. *t.* 5. *f.* 3, as he ſuppoſes, which is a variety of *P. magna*. Retzius informs us that the earlier leafits of the firſt year are roundiſh. ST.

Dry gravelly paſtures. P. Aug. Sept.

Horſes, Cows, Goats, Sheep, and Swine eat it.

great PIMPINEL'LA *mag'na.* All the leaves lobed; the odd one with 3 lobes. LINN.—Leaves winged. Leafits egg-ſhaped. HUDS.

Jacq. auſtr. iv. 396.—*Dod.* 315. 1, *repr. in Lob. obſ.* 413. 2, *ic.* i. 720. 1, *Ger. em.* 1044. 1, *and cop. in Park.* 947. 1.—*Fuchſ.* 608, *cop. in J. B.* iii. 6. 109, *Barr.* 243.—*Barr.* 243.—*H. ox.* ix. 5. *row* 1. 1.—*Pet.* 26. 5.—*Lonicer.* 229. 2.—(*Ger.* 887. 1, *Trag.* 466, *and perhaps Matth.* 1032, *appear from the leafits tapering at the baſe to be P. Saxifraga.* β.)

Leafits broader than they are long, ſerrated, as if beſmeared with oil, veined, of the appearance of thoſe of *Skirrets*, none circular, ſtrap-ſhaped, or divided into many parts. *Leaf-ſtalks* compreſſed. LINN.—Varies with *leafits* heart-egg-ſhaped, lobed, ſerrated, and cut-ſerrated. HUDS.—*Stem* 2 to 3 feet high, furrowed. *Stem-leaves* gradually narrower, at length ſtrap-ſhaped, almoſt entire. *Rundle*, ſpokes 14. *Rundlet*, ſpokes 10 to 18. *Petals* white. RELH.—*Leafits* deeply and irregularly ſerrated. Mr. WOODWARD. ST.—Heart-egg-ſhaped, with one of the inciſions on each ſide deeper than the reſt. *Bloſſom* white. ST.

Great Burnet Saxifrage.

Woods and hedges, in limeſtone. [Ripton Wood, Huntingdonſhire. Mr. WOODW.—Worceſterſhire. Mr. BALLARD. ST.—In marle. ST.] P. Aug. Sept.

A Horſe eat it. ST.

purple β. LINN. Bloſſoms pale roſe-colour. With the former. ST.

Pimpinella Saxifraga major flore rubente. PARK. 946.

fine-leaved β. HUDS. All the leaves jagged. RAY.

Pet. 26. 6.—*H. ox.* ix. 5. *row* 3. 3.

Hedges near Maidſtone, Kent. RAY.

This

This and the former ſpecies partake nearly of the ſame qualities. The root is very acrid, burning the mouth like pepper. It affords a blue oil. Its acrimony hath occaſioned it to be uſed to cure the tooth-ache, and to cleanſe the ſkin from freckles. It is chewed to promote the ſecretion of ſaliva, and is uſed in gargles for diſſolving viſcid mucus in the throat. In Germany it is preſcribed in the aſthma and dropſy.—The *Papilio Machaon* is found upon both ſpecies.

PIMPINEL'LA *dioi'ca*. Rundles very numerous, *leaſt* compound and ſimple. LINN.——Leaves moſtly doubly winged. Leafits ſtrap-ſhaped, ſimple, and 3-fingered. Flowers with chives and pointals on diſtinct plants. HUDS.

Jacq. auſtr. i. 28.—*Cluſ.* ii. 200. 1, *repr. in Ger. em.* 1054. 3, *and cop. in Ger.* 863, *and J. B.* iii. 6. 18. 1.—*Lob. adv.* 331. 2, *cop. in ic.* i. 745. 2, *which repr. in Ger. em.* 1021. 3.

Stem a hand's breadth high, ſtraddling, ſmooth, ſcored, with but few leaves. *Leaves* 3 or 2-fingered, ſtrap-ſhaped. *Rundles* 1 terminating, and 2 lateral, oppoſite, generally compound, ſome few ſimple. *Petals* long-ſpear-ſhaped, bowed in, not nicked. *Chives* white, long. *Fences* none. Some *plants* with only chives, others with chives and pointals. Nearly allied to *P. glauca*, or conſtituting a diſtinct genus. LINN.—*Root* ſpindle-ſhaped, perpendicular, ſomewhat branched at the baſe, and woolly at the head. *Stem* 8 to 16 inches high, upright, angular, very much branched. *Branches* open. The lower *leaves* oppoſite, on leaf-ſtalks, winged and doubly winged; *leafits* ſimple, and in threes, ſtrap-ſhaped, channelled, bare, ſea-green. *Leaf-ſtalks* membranaceous, ſheathing, oblong, ſcored, entire. *Rundles* on leaf-ſtalks, terminating, and from the boſom of the leaves; *general*, ſpokes long, about 6; *partial* crowded, ſpokes ſhort, about 5. *Flowers* yellowiſh or whitiſh. FLOWERS WITH ONLY CHIVES: *Petals* oblong, bowed in at the point, equal. *Threads* awl-ſhaped. FLOWERS WITH POINTALS. *Threads* 5, but the *tips* barren. *Shafts* diſtant. *Fruit* egg-ſhaped. HUDS.

Mountainous paſtures. St. Vincent's Rock, near Briſtol. Up-hill, Somerſetſhire. P. May. June.

397. A'PIUM. Parſley.

Rundle with few ſpokes. *Rundlets* with many.
EMPAL. *General Fence* none; or elſe of one or more leaves. *Partial Fence* the ſame. *Cup* hardly perceptible.
BLOSS. *General*; uniform. *Florets* almoſt all fertile. *Individuals*; *petals* circular; equal; bent inwards.
CHIVES. *Threads* 5; ſimple. *Tips* roundiſh.
POINT. *Seed-bud* beneath. *Shafts* 2; reflected. *Summits* blunt.
S. VESS. None. *Fruit* egg-ſhaped; ſcored; diviſible into 2.
SEEDS. 2; egg-ſhaped; ſcored on one ſide; flat on the other.
ESS. CHAR. *Fruit egg-ſhaped; ſcored. Fence 1 leaf. Petals equal.*

Smallage A'PIUM *grave'olens*. Stem-leaves wedge-ſhaped.—*Ludw.* 180.—*Fl. dan.* 790.—*Blackw.* 443.—*Ger.* 862, *cop. in H. ox.* ix. 9. 8.—*Fuchſ.* 744, *cop. in J. B.* iii. 6. 100, *and Trag.* 464.—*Pet.* 26. 12.—*Matth.* 768, *cop. in Dod.* 695, *which repr. in Lob. obſ.* 405. 2, *ic.* i. 707. 1, *Ger. em.* 1014, *and cop. in Park.* 926, *rundles, as alſo in Pet. repreſented as on long fruit-ſtalks, and with a general fence.*

General fence often wanting. LINN.—*Stem* angular, furrowed. *Rundles* ſitting, or on a fruit-ſtalk; ſpokes about 15. *Bloſs.* white. *Seeds* ſmall. RELHAN.—*Stem* ſmooth, ſhining, deeply furrowed. *Rundles*, ſome ſitting, others on long fruit-ſtalks, appearing as if proliferous. Mr. WOODWARD.—*Root-leaves* winged. *Leafits* divided into 3 lobes, ſerrated. *Rundles*, ſpokes 5 to 11; thoſe of the *rundlets* 11 to 16. *Petals* white.

Smallage.—Ditches and marſhes. [Salt Marſhes, near Yarmouth, and in the midland counties. Mr. WOODW.—Bog near Marazion, Cornwall. Mr. WATT.—Moors, Sanſom Fields, Worceſter. ST.] B. Aug.

The root in its wild ſtate (when it grows near water, ST.) is fetid, acrid, and noxious; but when cultivated (in dry ground, ST.) it loſes theſe properties, and the root and lower part of the leaf-ſtalks and ſtem blanched by covering them up with earth, are eaten raw, boiled in ſoups, or ſtewed. In this latter ſtate it is called *Celery*. They are ſaid to be hurtful to people ſubject to nervous complaints. They are certainly good antiſcorbutics. The ſeeds yield an eſſential oil.

Sheep and Goats eat it. Cows not fond of it. Horſes refuſe it.

398. ÆGO-

398. ÆGOPO'DIUM. Goutweed.

Rundle of many ſpokes; convex. *Rundlets* the ſame, but flat. *Fences* none.

EMPAL. *Cup* hardly diſcernible.

BLOSS. *General*; uniform. *Florets* all fertile. *Individuals*; *petals* 5; inverſely egg-ſhaped; equal; concave; bent inwards at the point.

CHIVES. *Threads* 5; ſimple; twice as long as the petals. *Tips* roundiſh.

POINT. *Seed-bud* beneath. *Shafts* 2; ſimple; upright; as long as the petals. *Summits* roundiſh.

S. VESS. None. *Fruit* oblong-egg-ſhaped; ſcored; diviſible into 2.

SEEDS. 2; oblong-egg-ſhaped; convex and ſcored on one ſide; flat on the other.

ESS. CHAR. *Fruit egg-oblong*; *ſcored*.

ÆGOPO'DIUM *Podagra'ria*. Upper ſtem-leaves 3-fingered.— *Gerard's*

Fl. dan. 670.— *Ger.* 848, *cop. in J. B.* iii. 6. 145.—*Dod.* 320. 2, *repr. in Lob. obſ.* 398. 3, *ic.* i. 700. 2, *Ger. em.* 1001. 2, *and cop. in Park.* 943, *Pet.* 25. 10, *and H. ox.* ix. 4. 11.

Upper *leaves* oppoſite. LINN.—*Root* creeping. *Stems* 1 or 2 cubits high, furrowed, with open branches. *Rundles* and *Rundlets*, ſpokes 14. *Bloſſom* white. RELH.—*Leafits* ſpear-ſhaped, ſerrated. Mr. WOODWARD.—*Lower leaf-ſtalks* 3-cornered, the lower ſides flat, the upper hollow. WITH.—*Roots* creeping. *Leaves*, ramifications of both ſurfaces beſet with very ſhort minute hairs. *Petals* white. ST.

Herb Gerard. Goutweed. Aſhweed. Ground Aſh.

Orchards, gardens, and paſtures, common. P. May.

The leaves may be eaten early in the ſpring with other pot-herbs.

Cows, Sheep, and Goats eat it. Horſes are not fond of it. LINN.—It ſometimes proves a very troubleſome weed in gardens. ST.

Order

Order III.

TRIGYNIA; III. POINTALS.

399. VIBUR'NUM. Mealytree.

EMPAL. *Cup* with 5 teeth; ſuperior; very ſmall; permanent.
BOSS. 1 *petal*; bell-ſhaped; with 5 ſhallow clefts. *Segments* blunt; reflected.
CHIVES. *Threads* 5; awl-ſhaped; as long, or twice as long as the bloſſom. *Tips* oblong; double.
POINT. *Seed-bud* beneath; roundiſh. *Shaft* none; but inſtead thereof a turban-ſhaped gland. *Summits* 3.
S. VESS. *Berry* roundiſh; 1 cell.
SEED. Single; roundiſh; hard as bone.
ESS. CHAR. *Empal.* 5 *diviſions*; *ſuperior*. *Bloſs.* 5 *clefts*. *Berry* 1 *ſeed*.

pliant VIBUR'NUM *Lanta'na*. Leaves heart-ſhaped, ſerrated, veined, cottony underneath.—

Jacq. auſtr. iv. 341.—*Matth.* 217, *cop. in Dod.* 781, *which repr. in Lob. obſ.* 591. 3, *Ger. em.* 1490.—*Walc.*—*Park.* 1448, *cop. in J. B.* i. 558.

Leaves oval, the down radiated, each hair conſiſting of ſeveral rays diverging from a point. *Flower-leaves* coloured. *Bloſs.* cloven half way down. *Summits* ſo much united as to appear as one. *Bloſſoms* white. *Berries* black. WITH.

Pliant Mealy-tree. Way-faring-tree.

Woods and hedges, in calcareous ſoil. [Herts, frequent. Mr. WOODWARD.—Ripple Field, Worceſterſhire. Mr. BALLARD.]

S. May.

The bark of the root is uſed to make bird-lime. The berries are drying and aſtringent.

Guelder-roſe VIBUR'NUM *Op'ulus*. Leaves lobed. Leaf-ſtalks beſet with glands.—

Fl. dan. 661.—*Ger.* 1236. 1.—*Dod.* 846. 1, *repr. in Ger. em.* 1424. 1.—*Park.* 209. 5.—*Trag.* 1002.—*Matth.* 1269.—*J. B.* i. 553.

Flowers

Flowers of the circumference without chives or pointals. *Rundles* flat-topped. ST.—*Bloſſoms* white. *Berries* red.

Water Elder.

Woods and wet hedges. S. May. June. Berries ripe in Sept. W.

The *Guelder Roſe* is a variety of it in which the whole of the *rundle* conſiſts of neutral florets, and is contracted into a globular form. ST.

Cows, Goats, and Sheep eat it. Horſes are not fond of it.

402. SAMBU'CUS. Elder.

EMPAL. *Cup* ſuperior; of 1 leaf; very ſmall; with 5 diviſions; permanent.

BLOSS. 1 *petal*; wheel-ſhaped; but ſomewhat concave; with 5 clefts; blunt. *Segments* reflected.

CHIVES. *Threads* 5; awl-ſhaped; as long as the bloſſom. *Tips* roundiſh.

POINT. *Seed-bud* beneath; egg-ſhaped; blunt. *Shaft* none; but inſtead thereof a bellying gland. *Summits* 3; blunt.

S. VESS. *Berry* roundiſh; of 1 cell.

SEEDS. 3; convex on one ſide; angular on the other.

ESS. CHAR. *Empal.* 5 *diviſions.* *Bloſſom* 5 *clefts.* *Berry* 3 *ſeeds.*

SAMBU'CUS *Eb'ulus.* Tufts of 3 ſpokes. Leaf-ſcales leafy. Stem herbaceous.— *dwarf*

Curt. iii. 36.—*Blackw.* 488.—*Mill.* 126.—*Matth.* 1270, *cop. in Lob. obſ.* 589. 2, *which repr. in Ger. em.* 1426, *and J. B.* i. *a* 549. 2.—*Fuchſ.* 65.—*Ger.* 1238.—*Trag.* 796.—*Park.* 209. 7.

Stems very brittle. *Leaves* winged, with ſeveral pair of leafits. *Leafits* ſpear-ſhaped, ſerrated, unequal at the baſe, the upper margin deficient. Sometimes ſmall leaves grow at the baſe of the leaf-ſtalks, and alſo on the leaf-ſtalks of the larger leafits. Mr. WOODWARD.—*Stem* and *leaf-ſtalks* furrowed. *Little-leaves at the baſe of the leaf-ſtalks* heart-ſhaped. *Leafits*, ſerratures purple at the points. *Empal.* ſegments ſometimes 6, purple. *Bloſs.* ſegments pointed. *Threads* thick, wrinkled. *Berry* 3 cells. *Bloſs.* white above; purple beneath. *Chives* white. *Tips* purple; one fixed on each ſide of every thread, ſo that there are properly ſpeaking 10 tips. WITH.

Dwarf Elder. Wallwort. Danewort.

Hedges and road ſides. S. July.

Has

Has the ſame medical properties with the *S. nigra*, but in ſome reſpects more violent, and therefore leſs manageable. A dram and a half of the root is a ſtrong purge.—The berries give out a violet colour.—The green leaves drive away mice from granaries, and the Sileſians ſtrew them where their pigs lie, under a perſuaſion that they prevent ſome of the diſeaſes to which they are liable. Neither Cows, Goats, Sheep, Horſes, or Swine will eat it.

common SAMBU'CUS *ni'gra*. Tufts of 5 ſpokes. Leaves winged. Leafits nearly egg-ſhaped, ſerrated. Stem woody. LINN.—Leaves winged. Little-leaves ſomewhat egg-ſhaped, ſerrated. RETZ. *obſ.* iii. 47. ST.

Fl. dan. 545.—*Blackw.* 151, *the beſt fruit.*—*Matth.* 1268, *cop. in Ger.* 1234.—*Fuchſ.* 64.—*Ger. em.* 1422. 1.—*Dod.* 845. 1, *repr. in Ger. em.* 1422. 2, *and cop. in Park.* 208. 1.—*Trag.* 997.—*J. B.* i. *a.* 544.

Leaves winged; *leafits* 5 to 7, ſomewhat egg-ſhaped, pointed, ſerrated. *Summit* ſpotleſs. *Berries* green, at length blackiſh purple, with a juice of the ſame colour. *Seeds* 3. RELH.—*Bloſſoms* white. *Berries* black. *Tips* yellow, arrow-ſhaped, one on each thread.

Woods and damp hedges. S. Apr. May.

The whole plant has a narcotic ſmell; it is not well to ſleep under its ſhade.—The *wood* is hard, tough, and yellow. It is commonly made into ſkewers for butchers; tops for angling rods; and needles for weaving nets. It is not a bad wood to turn in the lathe.—The inner green *bark* is purgative, and may be uſed with advantage where acrid purgatives are requiſite. In ſmaller doſes it is diuretic, and has done eminent ſervice in obſtinate glandular obſtructions, and in dropſies. If ſheep that have the rot are placed in a ſituation where they can get at the bark and the young ſhoots, they will ſoon cure themſelves. It is an ingredient in the black dye.—The *leaves* are purgative like the bark, but more nauſeous. They are an ingredient in ſeveral cooling ointments. If turneps, cabbages, fruit-trees, or corn, (which are ſubject to blight from a variety of inſects) are whipped with the green leaves and branches of elder, the inſects will not attack them. *Phil. Tranſ.* v. 62. p. 348. A decoction of the *flowers*, taken internally, is ſaid to promote expectoration in pleuriſies. If the flowers are freſh gathered they looſen the belly. Externally they are uſed in fomentations to eaſe pain and abate inflammation. Many people uſe them to give a flavour to vinegar. They are fatal to turkies. A rob prepared from the *berries* is a gentle opener, and promotes perſpiration. The juice of the berries is employed to give

give a red colour to raiſin or ſugar wines. The berries are poiſonous to poultry.—The *pith* being exceedingly light, is cut into balls, uſed in electrical experiments.

Sheep eat it. Horſes, Cows, and Goats refuſe it. LINN.—Others ſay that Cows are fond of it.—The *Aphis Sambuci*, and the *Phalæna Sambucaria*, are found upon it.

β. Berries white or green. white-berried

Staffordſhire, Warwickſhire, and Shropſhire. WITH. ST.

A wine is made of the fruit, which by many is held in much eſteem. ST.

γ. LINN. HUDS. *S. laciniata*. MILL. and RETZ. which ſee. parſley leaved

SAMBU'CUS *laciniata*. MILL. DU ROI.—Tufts with 5 diviſions. Leaves doubly winged; wings 3-fingered; leafits ſpear-ſhaped, cut. RETZ. *obſ.* iii. 47. MURR. in *Syſt. veg.* ST. *parſley leaved*

Ger. 1234. 2.—*Dod.* 845. 2, *repr. in Lob. obſ.* 589. 2, *Ger. em.* 1422. 3, *and cop. in J. B.* i. *a.* 549. 1.—*Park.* 208. 3.

Its having tufts with 5 diviſions, and a perennial trunk, will not induce me to believe that it originated from the *S. nigra*. RETZ. ST.—The want of ſerratures principally induces me to accede to the opinion of the above authors. Add to this that they are not known to run into one another, and that the *laciniata* has been found growing wild in very diſtant countries. ST.

In hedges, near Mancheſter, Briſtol, Dartford, and Walſoken, near Wiſbech. S.

404. STAPHYLE'A. Bladder-nut.

EMPAL. *Cup* with 5 diviſions; concave; roundiſh; coloured; nearly as large as the bloſſom.

BLOSS. *Petals* 5; oblong; upright; reſembling the cup. *Honey-cup* concave; diſtended; ſituated at the bottom of the flower, upon the receptacle.

CHIVES. *Threads* 5; oblong; upright; as long as the cup. *Tips* ſimple.

POINT. *Seed-bud* rather thick, with 3 diviſions. *Shafts* 3; ſimple; ſomewhat longer than the chives. *Summits* blunt; contiguous.

S. VESS. *Capſules* 3; bladder-ſhaped; limber; jointed by a ſeam lengthways; tapering at the points; opening inwardly.

SEEDS 2; hard as bone; ſomewhat globular; obliquely tapering; with a circular pit at the ſide, near the point.

Ess. Char. *Empal.* 5 *divisions. Petals* 5. *Capsules inflated, growing together. Seeds* 2; *globular*; *with a scar.*

winged STAPHYLE'A *pinna'ta.* Leaves winged.—*Matth.* 274.—*Lonic.* 30. 2.—*Lob. obs.* 540. 2, *cop. in Park.* 1418, *and J. B.* i. *a* 274.—*Ger.* 1249.—*Trag.* 1098.—*Dod.* 818, *repr. in Ger. em.* 1437.

Shafts 2. *Fruit*, cells 2. Linn. With.—*Shafts* sometimes 2, but mostly 3. *Capsule* 3 cells. *Seeds* constantly 2, in the larger cells, that in the third abortive. Leers.—*Blos.* in whorls; white.

Bladder-nut-tree.

Hedges, near Pontefract, Yorkshire. Ray.——About Ashford, Kent. Park. S. June.

409. CORRIGIO'LA. Strapwort.

Empal. *Cup* permanent; about the size of the blossom; of 5 leaves; egg-shaped; concave; expanding; membranaceous at the edge.

Bloss. *Petals* 5; egg-shaped; expanding; scarcely larger than the empalement.

Chives. *Threads* 5; awl-shaped; small. *Tips* simple.

Point. *Seed-bud* egg-shaped; 3-cornered. *Shaft* none. *Summits* 3; blunt.

S. Vess. The *Cup* approaching.

Seed 1; egg-shaped; three-square.

Ess. Char. *Empal.* 5 *leaves. Petals* 5. *Seed* 1; *three-square.*

sand. CORRIGIO'LA *littora'lis.*—*Fl. dan.* 334.—*J. B.* iii. 379, 2.—*H. ox.* v. 29. 1.

[Found by Mr. Hudson on Slapham Sands beyond Dartmouth and near the Star Point. Mr. Martyn.]

411. ALSI'NE.

411. ALSI'NE. Chickweed.

EMPAL. *Cup*, 5 leaves; concave; oblong; tapering.
BLOSS. *Petals* 5; equal; longer than the cup.
CHIVES. *Threads* 5; hair-like. *Tips* roundiſh.
POINT. *Seed-bud* nearly egg-ſhaped. *Shafts* 3; thread-ſhaped. *Summits* blunt.
S. VESS. *Capſule* egg-ſhaped; of 1 cell; covered by the cup.
SEEDS numerous; roundiſh.

ESS. CHAR. *Empal. of* 5 *leaves. Petals* 5; *equal. Capſule,* 1 *cell;* 3 *valves.*

OBS. In *A. media* the chives ſoon fall off, ſo that it is not unuſual to find flowers with fewer than 5 chives. LINN.—A genus totally artificial, combining plants which ſeem to agree only in the number of chives and ſhafts. The *A. media* and the *Ceraſtiums* are undoubtedly of one and the ſame genus. The other 2 ſpecies have entire petals. ST.

ALSI'NE *me'dia*. Petals divided into 2. Leaves egg-heart-ſhaped.— *common*

1. *pentſtemon*. OED. fl. dan. ST. 5 chived -

Fl. dan. 525.—*Curt.* i. 12.—*Sheldr.* 9.—*Walc.*—*Dod.* 29. 2, *repr. in Lob. obſ.* 245. 3, *Ger. em.* 611. 2, *and cop. in Park.* 760, *and H. ox.* v. 23. 4.—*Blackw.* 164.—*Fuchſ.* 21, *cop. in J. B.* iii. 6. 363, *and Trag.* 385.—*Lonic.* i. 167. 1 *and* 2.—*Ger.* 488. 2.

Flowers upright, and open from 9 in the morning to noon; but if it rains that day they do not open. After rain they become pendant, but in the courſe of a few days riſe again. *Capſule* opens with 6 valves, letting fall the ſeeds. *Seeds* round, compreſſed, yellow, rough with little tubercles. *Bloſs.* white.

This ſpecies is a notable inſtance of what is called the *Sleep of Plants;* for every night the leaves approach in pairs, ſo as to include within their upper ſurfaces the tender rudiments of the new ſhoots; and the uppermoſt pair but one at the end of the ſtalk, are furniſhed with longer leaf-ſtalks than the others, ſo that they can cloſe upon the terminating pair and protect the end of the branch. LINN.—*Glands* containing honey at the baſe of the threads. Mr. HOLLEF.—*Fruit-ſtalks* and *empal.* hairy. WITH.

Shady places, gardens, and cultivated ground. A. Mar.—Oct.

The young ſhoots and leaves when boiled, can hardly be diſtinguiſhed from ſpring ſpinach, and are equally wholeſome.

Swine are extremely fond of it. Cows and Horſes eat it. Sheep are indifferent to it; and Goats refuſe it. It is a grateful food to the ſinging Fringillæ, (Linnets as the brown Linnet and Canary, St.) to the reſt of the ſmall birds, and to young chickens.

Phalæna villica is found upon it. Linn.

10 chived 2. *decaſtemon.* Oed. fl. dan. St.

Fl. dan. 438.—*Ger.* 489.

Differs from the *A. media* in nothing but the number of its chives and the largeneſs of its leaves. Mr. Wood.—*Stems* cylindrical, but 2-edged, generally only one, but ſometimes both the edges fringed with hairs bent downwards. *Fruit-ſtalks* thread-like, beſet with ſhort hairs. St.

[Corby Caſtle, near Carliſle, and in hedges near Worceſter. St.]

Order IV.

TETRAGYNIA; IV. POINTALS.

415. PARNAS'SIA. Parnaſſia.

Empal. *Cup* with 5 diviſions; permanent. *Segments* oblong; ſharp; expanding.

Bloss. *Petals* 5; nearly circular; ſcored; concave; expanding; margins imperfect. *Honey-cups* 5; each being a concave heart-ſhaped ſubſtance, furniſhed with 13 little ſhafts or pillars ſet along the edge; and each pillar terminated by a little globe.

Chives. *Threads* 5; awl-ſhaped; as long as the petals. *Tips* depreſſed; fixed ſide-ways to the threads.

Point. *Seed-bud* egg-ſhaped; large. *Shafts* none; but inſtead thereof an open hole. *Summits* 4; blunt; permanent; growing larger as the ſeed ripens.

S. Vess. *Capſule* egg-ſhaped; with 4 angles; 1 cell and 4 valves. *Receptacle* in 4 parts; connected with the valves.

Seeds numerous; oblong.

Ess. Char. *Empal.* 5 *diviſions. Petals* 5. *Honey-cups* 5; *heart-ſhaped; fringed; fringe with globular heads. Capſ.* 4 *valves.*

PARNAS'SIA

PARNAS'SIA *paluſ'tris*— *marſh*

Ludw. 110.—*Fl. dan.* 584.—*Dod.* 564. 3, *repr. in Lob. obſ.* 330. 1, *Ger. em.* 840. 1, *and cop. in Park.* 429. 2, *and H. ox.* xii. 10. 3.—*Ger.* 691. 2.—*J. B.* iii. 537. 2.

Stem ſomewhat twiſted. Whilſt it is in flower, the ſeed-bud having neither *ſhaft* nor *ſummit*, is open at the top. The *chives* lay their tips alternately upon the orifice, and having diſcharged their duſt, recede back to the petals. LINN.—*Stems* undivided, with 5 ſharp corners. *Petals* a little ſcolloped at the edge, and ſlightly nicked at the end, white, with ſemi-tranſparent greyiſh veins. *Honey-cups* green, the globules yellow, from 10 to 15, generally 13. *Chives* only half as long as the petals, at firſt not longer than the ſeed-bud, but each in order becomes longer than the reſt, as it ſheds its duſt on the orifice of the ſeed-bud, which cloſes as ſoon as all the tips have ſhed their duſt. *Seed-bud* purpliſh. *S. veſſel*, corners blunt. WITH.—*Root-leaves* heart-ſhaped, on long leaf-ſtalks. *Stem-leaves* ſitting.

Graſs of Parnaſſus.

Moiſt meadows in Wales and the northern counties. [Common in every boggy meadow in Norfolk. Mr. WOODWARD.—In Staffordſhire and Worceſterſhire. ST.] P. Aug.

Horſes and Goats eat it. Sheep are not fond of it. Cows and Swine refuſe it. LINN.—A Horſe refuſed it. ST.

Order V.

PENTAGYNIA; V. POINTALS.

418. STAT'ICE. Thrift.

EMPAL. *Common Cup* different in different ſpecies. *Cup* 1 leaf; funnel-ſhaped. *Tube* narrow. *Border* entire; plaited; ſkinny.

BLOSS. funnel-ſhaped. *Petals* 5; narrow at the baſe; broader upwards; blunt; expanding.

CHIVES. *Threads* 5; awl-ſhaped; ſhorter than the bloſſom and fixed to the claws of the petals. *Tips* fixed ſideways to the threads.

POINT. *Seed-bud* extremely ſmall. *Shafts* 5; thread-ſhaped; diſtant. *Summits* ſharp.

S. VESS. none. The tube of the cup cloſes and contains the ſeed; but the border continues expanded.

SEED ſingle; very ſmall; roundiſh; crowned with the cup.

ESS. CHAR. *Empalement of* 1 *leaf; entire; plaited; ſkinny. Petals* 5. *Seed* 1; *ſuperior.*

common STAT'ICE *Armeria.* Stalk ſimple, with a head of flowers. Leaves ſtrap-ſhaped.—

Walc.—Dod. 564. 1, *repr. in Lob. obſ.* 242. 1, *Ger. em.* 602. 1, *and cop. in Park.* 1279. 13.—*Ger.* 482. 1.—*J. B.* iii. 336. 2. —*Pet.* 72. 8.—*(H. ox.* xv. 1. 29, *is referred to by Hudſon and Lightfoot, though not as a diſtinct variety. It is variety α of Linn. I do not know of its having been found in Great-Britain.)*

Bloſſoms pink.

Thrift. Sea Gilliflower. Sea Cuſhion.

Meadows and rocks on the ſea coaſt, and mountainous ſituations, as Snowdon, near Settle, and Ingleborough. [Wanſley Dale, between Aſcrig and Ayſgarth. Mr. WOOD.—Wells, Norfolk; Southwold, Suffolk. Mr. WOODWARD.—All the rocky coaſt of Cornwall. Mr. WATT.—Inchkeith in the Firth of Forth. WITH.]

P. July. Aug. [May. June. WITH.]

It is much uſed in gardens as an edging for borders, and when in full bloſſom gives a glowing tinge to paſtures on the ſea coaſt.

Horſes and Goats eat it. Sheep are not fond of it.

STATI'CE

STAT'ICE *Limo'nium*. Stalk panicled, cylindrical. *Lavender*
Leaves ſmooth, without ſtrings, ſpit-pointed underneath.

Blackw. 481.—*Fl. dan.* 315.—*Matth.* 980.—*H. ox.* xv. 1. *row* 1. *n.* 1. *f.* 4*th.*—*Dod.* 351, *repr. in Lob. obſ.* 157. 3, *Ger. em.* 411. 1, *and cop. in Park.* 1234. 1, *and J. B.* iii. 876. 3.

Salt marſhes, and rocks on the ſea coaſt. [Wells, Norfolk; Southwold, Suffolk. Mr. WOODWARD.] P. July.—Sept.

β. LINN.—Much ſmaller. Leaves gradually tapering to the baſe, having no regular leaf-ſtalks. RAY. Mr. WOODWARD. ST. *Lob. adv.* 123, *repr. in Ger. em.* 411. 2.—*(Ger.* 332. 2, *does not appear to be the plant. The leaves are blunt, and not pointed as in the other figures and my ſpecimens.)* *rock*

Bloſſoms of a very deep purple. Mrs. WATT.

We have 2 varieties correſponding with the above character. In the one the leaves ſhort and blunt, in the other longer and more pointed. The ſharp point at the end of the leaf mark them both as belonging to this ſpecies. Mr. WOODWARD.

Harwich. Ramſgate. RAY.—[Cornwall. Mrs. WATT.—Lynn. Mr. WOODWARD.]

β. HUDS.—Leaves longer, and taper-pointed. Flowers later. RAY.

Sea banks near Walton, Eſſex; and between Heybridge and Maldon. RAY.

STAT'ICE *reticula'ta*. Stalk panicled, lying flat. *matted*
The barren branches naked and bent backwards. Leaves wedge-ſhaped, without any ſharp points.—

Pluk. 42. 4.

Root-leaves oblong-wedge-ſhaped, on leaf-ſtalks. *Props* half embracing the ſtem, awl-ſhaped, terminating in a long point, membranaceous at the edge. Mr. WOODWARD.

Matted Sea Lavender.

On the Norfolk coaſt. [At Wells, Norfolk, abundantly. Mr. WOODWARD.—At Blakeney, Meſſrs. CROWE and PITCHFORD.] P. July. Aug.

419. LI'NUM. Flax.

EMPAL. *Cup* 5 leaves; ſmall; ſpear-ſhaped; upright; permanent.

BLOSS. funnel-ſhaped. *Petals* 5; oblong; large; blunt; gradually expanding and growing broader upwards.

CHIVES. *Threads* 5; awl-ſhaped; upright; as long as the cup; alternating with theſe are the rudiments of 5 more. *Tips* ſimple; arrow-ſhaped.

POINT. *Seed-bud* egg-ſhaped. *Shafts* 5; thread-ſhaped; upright; as long as the chives. *Summits* ſimple; reflected.

S. VESS. *Capſule* globular; with 5 imperfect angles; 10 cells, and 5 valves.

SEEDS ſolitary; flattiſh egg-ſhaped; tapering; gloſſy.

ESS. CHAR. *Empal.* 5 *leaves. Petals* 5. *Capſule* 5 *valves*; 10 *cells. Seeds ſolitary.*

OBS. In *L. Radiola* one fifth in the number of parts is wanting.

* *Leaves alternate.*

common LI'NUM *uſitatiſſimum*. Empalements and capſules ſpit-pointed. Petals ſcolloped. Leaves ſpear-ſhaped, alternate. Stem generally ſolitary.—

Ludw. 144.—*Blackw.* 160. 2.—*Fuchſ.* 471, *cop. in J. B.* iii. 451.—*Matth.* 414, *cop. in Dod.* 533, *Lob. obſ.* 225. 1, *Ger. em.* 556, *and cop. in H. ox.* v. 26. *row* 2. 1.—*Lonic.* 153. 2.—*Blackw.* 160. 1.—*Trag.* 353.

Stem cylindrical, *Petals* ſky blue, ſcored with deeper coloured lines. *Threads* united at the baſe. *Shafts* blue, thicker towards the top. The inner edge of the cup a little fringed. WITH.

Corn fields and ſandy paſtures in Dorſetſhire and Devonſhire. [Near Cawſton, Norfolk. Mr. BRYANT.—Corn fields, Ripton, Huntingdonſhire. Mr. WOODWARD.—Downs, old paſtures, and corn fields, near to commons about Redruth and Trelubbus, Cornwall. Mr. WATT.] A. July.

This valuable plant originally came from thoſe parts of Ægypt which are expoſed to the inundations of the Nile. The *ſeeds* yield, by expreſſion only, a large proportion of oil, which is an excellent pectoral, as is likewiſe the mucilaginous infuſion. They make an eaſy and uſeful poultice in caſes of external inflammation; and they are the food of ſeveral ſmall birds. After the oil is expreſſed, the remaining farinaceous part, called Oil Cake, is given to oxen, who ſoon grow fat upon it. The *oil* itſelf differs in ſeveral reſpects from

from other expreſſed oils; it does not congeal in winter, nor does it form a ſolid ſoap with fixed alkaline ſalts; and it acts more powerfully as a menſtruum upon ſulphureous bodies. When heat is applied during the expreſſion it gets a yellowiſh colour, and a peculiar ſmell. In this ſtate it is uſed by the painters and the varniſhers.—The fibres of the *ſtem* are manufactured into linen; and this linen, when worn to rags, is made into paper.

LI'NUM *peren'ne*. Empalements and capſules blunt. Leaves alternate, ſpear-ſhaped; very entire. LINN.—— Empalement very entire and ſmooth. ST. *perennial*

α. upright.

Mill. 166. 2.

Empal. leaves oval, hollow, with a ſhort bluntiſh point at the end, not fringed or hairy, marked with 5 lines. *Bloſs.* blue. ST.

Paſtures and meadows in a calcareous ſoil. [Marham, Norfolk. Ixworth, Suffolk. Gogmagog Hills. Mr. WOODWARD.]

P. June. July.

β. Stem trailing. Both varieties riſe from the ſame root. In the *upright* the chives are longer than the pointals; in the *trailing* they are ſhorter. HUDS. trailing

LI'NUM *anguſtifo'lium*. Empalements and capſules taper-pointed. Stem branching, and ſomewhat declining at the baſe. HUDS.—Leaves very entire. Empalements fringed with hairs not tipped with glands. ST. Mr. WOODWARD. *narrowleaved*

(Cluſ. i. 318. 1, *repr. in Lob. obſ.* 226. 2, *is a pretty good repreſentation of it, but from Cluſius's deſcription of bloſſoms of a deep blue, ſhould ſeem to be L. auſtriacum, which this ſpecies a good deal reſembles in habit; and not L. tenuifolium as C. B. makes it.)*

Stems numerous, branched towards the top. *Leaves* ſpear-ſtrap-ſhaped, ſtiff, pointed, ſcattered, hairy underneath, as far as the ſtem is trailing pointing upwards, above that in various directions. *Empal.* ſhorter than the capſule, egg-ſhaped, blunt, but ending in a ſharp point, keeled with a prominent rib. *Bloſs.* much ſmaller than that of *L. perenne*, pale reddiſh purple with darker lines; *petals* not abſolutely entire. *Shafts* not bent back beyond the chives. Mr. WOODWARD and ST.—Except that in all my ſpecimens the *leaves* are quite ſmooth. *Bloſs.* not much above as long again as the empalement. ST.—*Capſ.* and *empal.* ſharp-pointed. *Petals* very entire. *Stems* many from one root. WITH.

L. tenuifolium. ♃. LINN.—*L. ſylv. anguſt. et denſior. fol. flore minore.* C. B. pin. 214.—*(Linum, Haller* 838, is referred to by Hudſon, but

but appears to me to be what Haller himself considers it, *L. tenuifolium*. St. Mr. Woodward.)

Dry meadows and pastures. [Cornwall, frequent. Huds. Mr. Watt.—In Devonshire. Minster in the Isle of Shepey, and Deal. Huds.] P. June. July.

** *Leaves opposite.*

purging LI'NUM *catharticum*. Leaves opposite, egg-spear-shaped. Stem forked. Blossoms pointed.—

Ludw. 143.—*Curt.* iii. 26.—*Walc.*—*Blackw.* 368.—*J. B.* iii. 455. 2.—*Pet.* 55. 12.—*Ger. em.* 560. 5, *cop. in Park.* 1336. 10.—*Barr.* 1165. 1.

Before the flowers open they hang down. Linn.——*Threads* united, in form of a glass, inclosing the seed-bud. Mr. Hollefear.—*Empal.* edge fringed with minute glands on foot-stalks. St.—*Threads* united, forming a bag which incloses the lower half of the seed-bud. With.

Purging Flax. Mill-mountain. Dwarf Wild Flax.

Dry meadows and pastures. A. May.—July.

An infusion of 2 drams or more of the dried plant is an excellent purge, and has been given with advantage in many obstinate rheumatisms. It frequently acts as a diuretic. With.

Horses, Sheep, and Goats eat it.

All-seed LI'NUM *Radi'ola*. Leaves opposite. Stem forked. Chives and shafts 4.

Fl. dan. 178.—*Vaill.* 4. 6.—*Ray* 15. 3. *at p.* 348.—*Pet.* 59. 12.—*Michel.* 21.—*Ger. em.* 569. 2.

Blossoms white.

All-seed. Least Rupture-wort.

Moist sandy heaths. A. Aug.

421. DRO'SERA. Sundew.

EMPAL. *Cup* 1 leaf; with 5 clefts; ſharp; upright; permanent.
BLOSS. funnel-ſhaped. *Petals* 5; nearly egg-ſhaped; blunt; ſomewhat larger than the cup.
CHIVES. *Threads* 5; awl-ſhaped; as long as the cup. *Tips* ſmall.
POINT. *Seed-bud* roundiſh. *Shafts* 5; ſimple; as long as the chives. *Summits* ſimple.
S. VESS. *Capſule* nearly egg-ſhaped; of 1 cell; opening with 5 valves at the top.
SEEDS numerous; very ſmall; nearly egg-ſhaped.
ESS. CHAR. *Empal.* 5 *clefts. Petals* 5. *Capſule* 1 *cell,* 5 *valves at the point. Seeds numerous.*

DRO'SERA *rotundifo'lia.* Stalks from the root. *round-leaved*
Leaves circular. LINN.—Shafts 6. HUDS.

Sheldr. 39.—*Lob. obſ.* 472. 2, *repr. in Ger. em.* 1556. 1, *cop. in Park.* 1052. 1. *b. c, and Pet.* 63. 10.—*Blackw.* 432.—*Thal.* 9. 1, *cop. in J. B.* iii. 761. 2.—*Barr.* 251. 1.—*Trag.* 529. 3, *cop. in Lonic.* 222. 2.—*Ger.* 1366. 1.

Leaf-ſtalks fringed at the baſe. *Bloſſoms* white.

Sundew. Roſa ſolis. Redrot. Youthwort. Moorgraſs.

Moſſy bogs. [Malvern Chace on the ſide of the rivulet flowing from the Spa. Mr. BALLARD.—Birmingham Heath. WITH.]

P. July. Aug.

The whole plant is acrid, and ſufficiently cauſtic to erode the ſkin; but ſome ladies know how to mix the juice with milk, ſo as to make it an innocent and ſafe application to remove freckles and ſunburn. The juice that exſudes from it unmixed will deſtroy warts and corns.—The plant has the ſame effect upon milk as the *Pinguicula vulgaris;* and like that too is ſuppoſed to occaſion the rot in Sheep. Is not the ſour coagulated milk of the Syrians, called *Leban,* or *Leven,* at firſt prepared with ſome plant of this kind? See *Ruſſel's nat. hiſt. of Aleppo.*

The name, SUNDEW, ſeems to be derived from a very ſtriking circumſtance in the appearance of theſe plants; the leaves are fringed with hairs, ſupporting ſmall drops or globules of a pellucid liquor like dew, which continue even in the hotteſt part of the day, and in the fulleſt expoſure to the ſun. Perhaps the acrimony of the plant reſides in this ſecreted liquor.

DRO'SERA

long-leaved DRO'SERA *longifo'lia*. Stalks from the root. Leaves oval-oblong. LINN.—Shafts 6. HUDS

Dod. 474. 2, *repr. in Ger. em.* 1556. 2, *and cop. in Pet.* 63. 11. —*H. ox.* xv. 4. *row* 1. 2.—*Thal.* 9. 2, *cop. in J. B.* iii. 761. 1.—*Barr.* 251. 2.—*Lob. adv.* 454. 2, *ill cop. in Park.* 1052. 1. *a*,—*Ger.* 1366. 2.

Grows with the former. Is it really a diſtinct ſpecies? LINN. —In this and the former, *ſhafts* 6, and valves of the capſule 3. HUDS.——*Leaves* upright, oblong, fleſhy, ſmooth underneath, above beſet with purple hairs tipped with glands; the younger ones rolled in. *Leaf-ſtalks* longer than the leaves, fringed at the baſe. *Stalk* upright, cylindrical, nodding at the end, with many flowers, before flowering rolled up. *Floral-leaves* very ſmall, pointed, as long as the fruit-ſtalks. *Bloſs.* white. LYONS.—On Brigſtear Moſs, near Kendal, growing to twice and thrice the ſize they do about London. Ray's 3 additional ſpecies probably only varieties. CURT. *bot. excurs.*—Differs from the preceding only in the ſhape of the leaves. *Bot. arr. ed.* i. RELH.

Bogs with the former. LINN. HUDS. ST.—[In Norfolk, frequent. Mr. WOODWARD.] P. July. Aug.

Its properties are the ſame with thoſe of the *rotundifolia*.

great DRO'SERA *ang'lica*. Leaves oblong. Stalks from the root. Shafts 8. HUDS.

H. ox. xv. 4. *row* 1, *figure the laſt, cop. in Pet.* 63. 12.—*Park.* 1052. 2, *are the Rorella longif. max. of Ray, which Mr. Hudſon refers to, though he does not to the above figures.*

Has many things in common with the preceding ſpecies, but is larger, and the *capſules* have 4 valves. HUDS.

Boggy ground in the northern counties. Devonſhire, Hants, and Norfolk. P. July. Aug.

Few perſons can have obſerved the DROSERA in its native bogs, without ſeeing ſome of the leaves doubled up; but the cauſe of this, I believe, was firſt aſcertained in this kingdom by the attention and ingenuity of my friend, Mr. WHATELY, now a ſurgeon in London. In the month of Auguſt, 1780, that gentleman, being upon a viſit in Derbyſhire, and gathering ſome ſpecimens of the Droſera, examined ſome of theſe folded leaves, and finding a dead inſect in each, was prompted to irritate the upper ſurface of other leaves, by touching them with a pin. The effect was as he expected, a ſudden contraction of the leaf upon the pin. He communicated this curious fact to me; and though the experiment has ſince failed in my hands, I am ſatisfied he ſaw what he deſcribed. His friend, Mr. GARDOM, a Derbyſhire botaniſt, who accompanied

panied him at the moment of this diſcovery, has ſince written me the following account:

"In Auguſt, 1780, examining the DROSERA in company with Mr. WHATELY, on his inſpecting ſome of the contracted leaves, we obſerved a ſmall inſect or fly very cloſely impriſoned therein, which occaſioned ſome aſtoniſhment, to me at leaſt, how it happened to get into that confined ſituation. Afterwards, on Mr. Whately's centrically preſſing with a pin other leaves, yet in their natural and expanded form; we obſerved a remarkable ſudden and elaſtic ſpring of the leaves, ſo as to become inverted upwards, and as it were encircling the pin, which evidently ſhewed the method by which the fly came into its embarraſſing ſituation. This experiment was renewed repeatedly, and with the ſame effect, ſo that Mr. Whately and myſelf are both certain of the fact."

Two or three years after Mr. Whately had ſent me an account of his diſcovery, I was much pleaſed to find the following account of the Droſera in a German author, which, though it differs in ſome reſpects from the obſervations of Mr. Whately and Mr. Gardom, yet upon the whole it tends further to illuſtrate the ſingular properties of theſe curious plants:

"July, 1779. *Droſ. rotundifolia* and *D. longifolia*.—I remarked that many leaves were folded together from the point towards the baſe, and that all the hairs were bent like a bow, but there was no apparent change on the leaf-ſtalk. Upon opening theſe leaves I found in each a dead inſect. Hence I imagined that this plant, which has ſome reſemblance to the Dionæa muſcipula, might alſo have a ſimilar moving power.

"With a pair of plyers I placed an ant upon the middle of a leaf of the D. rotundifolia, but ſo as not to diſturb the plant. The ant endeavoured to eſcape, but was held faſt by the clammy juice at the points of the hairs, which was drawn out by its feet into fine threads. In ſome minutes the ſhort hairs on the diſk of the leaf began to bend, then the long hairs, and laid themſelves upon the inſect. After a while the leaf began to bend, and in ſome hours the end of the leaf was ſo bent inwards as to touch the baſe. The ant died in 15 minutes, which was before all the hairs had bent themſelves. On repeating this experiment, I found the effects to follow ſooner or later, according to the ſtate of the weather. At 11 in the morning, a ſmall fly placed in the centre of a leaf, died ſooner than the ant had done, the hairs bent themſelves as before, and at 5 in the evening the leaf was bent together, and held the fly ſhut up. The ſame experiment being made on the D. longifolia, the ſame effects followed, but more rapidly. I obſerved, that in ſultry weather, and hot ſunſhine, when the drops of juice

upon

upon the points of the hairs are largeſt, the experiment ſucceeds beſt. If the inſect be a ſmall one, ſometimes only one edge of the leaf is folded up; hence it ſhould ſeem neceſſary that the inſect ſhould ſtir all the hairs of the leaf."—Wroth. Beytrog. p. 64.

Theſe accounts will, I hope, occaſion numerous obſervations to be made upon this Britiſh Fly-trap, which ſo nearly approaches in its wonderful properties to the Dionæa muſcipula or Venus Fly-trap, a native of the Bogs of Carolina. It is natural to enquire whether this deſtruction of inſects be not neceſſary to the welfare of the plant? It is obvious that the experiments ſhould be made upon well-grown vigorous plants in a fine day, as then the drops of adheſive liquor at the ends of the hairs are always the largeſt.

It may be uſeful to remark, that theſe plants are not to be found without a pretty cloſe inſpection of the Bogs they grow in, as they are much covered by, and entangled with Moſs.

425. SIBBAL'DIA. Silverweed.

EMPAL. *Cup* 1 leaf; with 10 ſhallow clefts; upright at the baſe; permanent. *Segments* alternately narrower; half ſpear-ſhaped; equal; expanding.
BLOSS. *Petals* 5; egg-ſhaped; ſtanding on the cup.
CHIVES. *Threads* 5, hair-like; ſhorter than the petals; ſtanding on the cup. *Tips* ſmall; blunt.
POINT. *Seed-buds* 5; egg-ſhaped; very ſhort. *Shafts* as long as the chives, and ſtanding upon the ſides of the ſeed-buds. *Summits* ſomewhat globular.
S. VESS. none. The *Cup* cloſes upon the ſeeds.
SEEDS 5; rather long.

ESS. CHAR. *Empal.* 10 *clefts.* *Petals* 5, *inſerted into the empal.* *Shafts from the ſide of the ſeed-buds.* *Seeds* 5.

procumbent SIBBAL'DIA *procum'bens.* Leafits with 3 teeth.—*Fl. dan.* 32.—*Penn. voy.* ii. 5. *at p.* 43.—*Pluk.* 212. 3.—*Pet.* 41. 7, *as cultivated.*

Root woody. *Stems* trailing, covered with the remains of the dead leaf-ſtalks. *Leaf-ſtalks* ſlender, ſlightly woolly, below oblong, membranaceous, brown, embracing the ſtems, ſlightly cloven, pointed. *Leaves* 3-fingered. *Leafits* inverſely egg-ſhaped, but ſomewhat lopped at the end, beſet on each ſide with ſoft hairs; teeth ſomewhat pointed. *Bloſs.* yellow, ſmaller than the empal. *Pointals* ſometimes 10, and 5 in the ſame plant. In what reſpects it differs from the *Potentilla* may be ſeen by comparing

paring the deſcriptions of the 2 genera. Indeed it agrees with that and the reſt of the natural order of *Senticoſæ*; except in the number of chives and pointals. LINN.—The younger *Root Leaves* ſilky, the older bald. *Chives* and *Seeds* not more than 5. HALL.—*Leaf-ſtalks* long. *Leafits* wedge-ſhaped, ſlightly cloven into 3 at the end. Mr. WOODWARD.—*Leaf-ſtalks* longer than the leafits. *Leaves* with fine ſilky hairs on both ſides. *Chives* 7 or more in all the flowers examined of a cultivated ſpecimen. *Threads* reddiſh. *Tips* yellow, *Seed-buds* 10. *Seeds* 10, fixed to a dry hairy receptacle. WITH.

Mountains of Scotland. P. July. Aug.

Order VI.

POLYGYNIA; MANY POINTALS.

426. MYOSU'RUS. Mouſetail.

EMPAL. *Cup* 5 leaves; half ſpear-ſhaped; blunt, reflected; coloured; deciduous; joined together above the baſe.

BLOSS. *Petals* 5, very ſmall; ſhorter than the cup; tubular at the baſe; opening obliquely inwards.

CHIVES. *Threads* 5 or more, as long as the cup. *Tips* oblong; upright.

POINT. *Seed-buds* numerous; ſitting upon the receptacle, forming an oblong cone. *Shafts* none. *Summits* ſimple.

S. VESS. none. *Receptacle* very long, ſhaped like a pillar; covered by the ſeeds which are laid one over another like tiles.

SEEDS numerous; oblong; tapering.

ESSS. CHAR. *Empal.* 5 *leaves, growing to each other at the baſe. Honey-cups* 5, *awl-ſhaped, reſembling petals. Seeds numerous.* (In the generic deſcription the Honey-cups are deſcribed as Petals. REICH.)

OBS. The number of *Chives* very variable. Cloſely allied to the *Ranunculus*.

little MYOSU'RUS *min'imus.*

Curt. iv. 43.—*Fl. dan.* 406.—*Mill. illuſtr.*—*Dod.* 112. 1, *repr. in Lob. obſ.* 242. 1, *Ger. em.* 426. 4, *and cop. in Park.* 500, *J. B.* iii. 512. *and Pet.* 39. 7.—*Ger.* 345. 4, *chives repreſented as proceeding from the whole length of the receptacle.*—*Lonic* ii. 18. 1.

Threads 4, 5, 6, MOENCH. 7. POLLICH. 10. LYONS; to 20. GMEL.—There is a variety with hairy leaves. HUDS.—*Stem* ſimple. *Root-leaves* narrow; ſtrap-ſhaped. *Bloſſoms* greeniſh.

Cornfields, meadows and paſtures, in a gravelly ſoil. [At Lahenham. Mr. CROWE.—Near Derby, Mr. WHATELY.—Malvern Chace, Worceſterſh. Mr. BALLARD.]

The whole plant is acrid.

Claſs VI.

HEXANDRIA.

VI. CHIVES.

THE flowers of this claſs contain 6 chives, all of the *ſame length*, whereas in the 15th claſs, the chives, though 16 in number, are *unequal in length*, 4 of them being long, and 2 of them ſhort.

The BULBOUS ROOTS in this claſs are ſome of them noxious, as thoſe of the DAFFODIL, the HYACINTH, and the FRITILLARY; others are corroſive, as GARLICK, but by roaſting or boiling they loſe great part of their acrimony.

Order I.

MONOGYNIA; I. POINTAL.

* Flowers *with a cup and a bloſſom.*

481. FRANKE'NIA..... *Bloſs.* 5 petals. *Cup* 1 leaf; beneath. *Capſule* 1 cell. *Seeds* many.

476. BER'BERIS. ..... *Bloſs.* 6 petals. *Cup* 6 leaves; beneath. *Berry*, 2 ſeeds.

† Hottonia paluſtris. Anthericum calyculatum. Lythrum hyſſopifolia. Peplis Portula.

** Flowers *with a ſheath, or huſk.*

433. GALAN'THUS. .... *Bloſs.* ſuperior. *Petals* 6; the 3 *inner* ones ſhorter and notched at the end.

436. NARCIS'SUS. ..... *Bloſs.* ſuperior. *Petals* 6. *Honey-cup* bell-ſhaped; on the outſide of the chives.

442. AL'LIUM. ..... *Bloſs.* beneath. *Petals* 6; egg-ſhaped, ſitting.

*** Flowers *naked.*

459. CONVALLA'RIA. *Bloſſom* beneath; with 6 clefts. *Berry*, 3 ſeeds.

461. HYACIN'THUS. .... *Bloſs.* beneath; with 6 clefts; 3 honey-cup pores at the top of the ſeed-bud.* *(Segments of the bloſſom rolled back.* WITH.)

455. ANTHER'ICUM. .... *Bloſs.* beneath; with 6 flat petals.

451. ORNITHOG'ALUM. *Bloſs.* beneath; with 6 petals. *Threads* alternately broader at the baſe.

452. SCIL'LA. ..... *Bloſs.* beneath. *Petals* 6; deciduous. *Threads* cylindrical; of equal thickneſs.

457. ASPAR'AGUS. ..... *Bloſs.* beneath. *Petals* 6. *Berry*, 6 ſeeds.

444. FRITILLA'RIA. .... *Bloſſom* beneath. *Petals* 6; egg-ſhaped; with a *honey-cup* pore at the baſe.

† Juncus.

* I never could obſerve theſe pores in our ſpecies. WITH.

**** Flowers *imperfect.*

468. AC'ORUS. ..... *Sheath* containing ſeveral flowers. *Capſule* 3 cells.

472. JUN'CUS. ..... *Cup* 6 leaves. *Capſule* 1 cell.

482. PEP'LIS. ..... *Cup* with 12 clefts. *Capſ.* 2 cells.

Order II.

DIGYNIA; II. POINTALS.

† Rumex digynus. Polygonum Perſicaria. Polygonum hydropiper. Agrimonia Eupatoria.

Order

Order III.

TRIGYNIA; III. POINTALS.

492. COL'CHICUM. .... *Empal.* a ſheath. *Bloſs.* with 6 diviſions reſembling petals.

488. TRIG'LOCHIN. .... *Cup* 3 leaves. *Bloſs.* 3 petals. *Capſule* opening at the baſe.

485. RU'MEX. ..... *Cup* 3 leaves. *Bloſſom* 3 petals. *Seed* 1, 3-cornered.

† Anthericum calyculatum. Droſera rotundifolia. Droſera longifolia.

Order V.

POLYGYNIA; MANY POINTALS.

495. ALIS'MA. ..... *Cup* 3 leaves. *Bloſſom* 3 petals. *Seed-veſſels* many.

† Triglochin maritimum.

Order I.

MONOGYNIA; I. POINTAL.

433. GALAN'THUS. Snowdrop.

EMPAL. *Sheath* oblong, blunt, forked, compreſſed, ſhrivelling; opening at the flat ſide.

BLOSS. *Petals* 3, oblong, blunt, concave, looſe, equal; ſtanding open. *Honey-cup* cylindrical; nearly half as long as the petals; compoſed of 3 leaves reſembling petals, parallel, blunt, nicked at the end.

CHIVES. *Threads* 6, hair-like, very ſhort. *Tips* oblong, approaching, tapering, and ending in a briſtle.

POINT. *Seed-bud* globular; beneath. *Shaft* thread-ſhaped; longer than the chives. *Summit* ſimple.

S. VESS. *Capſule* nearly globular, with 3 blunt corners, 3 cells, and 3 valves.

SEEDS many; globular.

ESS. CHAR. *Petals* 3, *concave*. *Honey-cup of* 3 *petals, ſmall, nicked. Summit ſimple.*

common GALANT'HUS *niva'lis.*—

Jacq. auſtr. iv. 313.—*Walc.*—*Cluſ.* i. 169. 1, *repr. in Dod.* 230. 1, *Lob. obſ.* 64. 3, *Ger. em.* 147.—*Park. par.* 107, *fig. between* 6, 7, *and* 9.—*Ger.* 120. 1.—*Matth.* 1245.

Root bulbous. LINN.

Snowdrop. Fair Maids of February.

Meadows, ſides of hedges. [At the foot of Malvern Hills, on the right of the road running below the Camp. Mr. BALLARD in Bot. Arr. ed. i.—Where no traces of any buildings or gardens are to be found. Finſtall, near Bromſgrove. ST.—Near Cirenceſter, Glouceſterſhire. Mr. YERROW ARROWSMITH.]—And in orchards in Weſtmoreland, Cumberland, and Lancaſhire. HUDS.

P. March. April.

436. NAR-

436. NARCIS'SUS. Daffodil.

EMPAL. *Sheath* oblong; blunt; compreſſed; opening upon the flat ſide; ſhrivelling.

BLOSS. *Petals* 6; egg-ſhaped; tapering; flat; fixed on the outſide above the baſe of the tube of the honey-cup. *Honey-cup* 1 leaf; funnel-ſhaped; but rather cylindrical; border coloured.

CHIVES. *Threads* 6; awl-ſhaped; fixed to the tube of the honey-cup, but ſhorter than the honey-cup. *Tips* rather long.

POINT. *Seed-bud* beneath; roundiſh; with 3 blunt corners. *Shaft* thread-ſhaped; longer than the chives. *Summit* with 3 clefts; concave; blunt.

S. VESS. *Capſule* roundiſh; bluntly 3-cornered; with 3 cells, and 3 valves.

SEEDS numerous; globular; with little appendages.

ESS. CHAR. *Petals* 6; *equal. Honey-cup funnel-ſhaped; of* 1 *leaf. Chives within the honey-cup.*

NARCIS'SUS *poet'icus*, Sheath with 1 flower. *pale* Honey-cup wheel-ſhaped, very ſhort, ſkinny, finely ſcolloped.—

Park. par. 75. 1.—*Chuſ.* i. 156, *repr. in Dod.* 223. 2, *and Ger. em.* 124. 7, *and cop. in Ger.* 110. 6, *J. B.* ii. 604. 1, *and Pet.* 67. 10.

Bloſs. yellowiſh white. *Honey-cup* yellow. GER.—*Flowers* moſtly 2, ſometimes 1, and ſeldom more than 3 on a ſtalk, larger than any that bear many flowers upon a ſtalk, of a ſweet, but ſtuffing ſcent. *Bloſs.* pale whitiſh cream colour. *Honey-cup* pale yellow. PARK. RAY. ST.—*Bloſs. tube* 3-ſquare, as long as the petals; *petals* roundiſh-oblong, terminating in a ſhort tooth. *Honey-cup* bright yellow. Mr. Hudſon appears to conſider it as a variety of *N. poeticus*, which is, however, deſcribed by all authors as bearing only 1 flower on a ſtalk. I ſuſpect it will prove a diſtinct ſpecies. ST.

Meadows and hedges but rather rare. HUDS.—Fields and ſides of woods in the weſt of England. GER.—And at a diſtance from any houſe. RAY.—Near Hornſey Church.* SHERARD in R. ſyn. —[Near Hallifax. Mr. WOOD.] P. May.

* *Pet.* 67. 8, is a fig. of what he calls the *Hornſey Daffodil.* From the length of the honey-cup it ſhould ſeem to be a ſpecies not uncommon in our gardens, but unnoticed by Linnæus, and which I would call the

NARCIS'SUS *pal'lidus.* ST. *Nonſuch*

common NARCIS'SUS *Pseudo-Narcissus.* Sheath with 1 flower. Honey-cup bell-shaped, upright, curled, as long as the petals. Petals egg-shaped.—

Tourn. 185. *H.*—*Dod.* 227. 1, *repr. in Lob. obs.* 61. 1, *Ger. em.* 133. 2, *and cop. in Pet.* 67. 9.—*Swert.* i. 21. 3.—*J. B.* ii. 592. 2.—*Trag.* 757.—*Ger.* 115. 2.

Stalk 2-edged. *Petals* egg-spear-shaped, straw-coloured. *Honey-cup* throughout of a full yellow; the rim a little plaited and snipt. *Dust* kidney-shaped. WITH.

Woods, meadows, and sides of hedges. In woods near Erith, Kent. [Norfolk. Mr. WOODW.—And in orchards. Hanley Castle, Worcestershire. Mr. BALLARD.—Covers almost a whole field beyond Erdington, on the road from Birmingh. to Sutton. Madely, Shropsh. WITH. Near Derby. Mr. WHATELY.] P. Ap. [& Mar. W.]

The fresh roots are acrid.

442. AL'LIUM. Garlick.

EMPAL. *Sheath* common to several flowers; roundish; shrivelling.

BLOSS. *Petals* 6; oblong.

CHIVES. *Threads* 6; awl-shaped; generally as long as the blossom. *Tips* oblong; upright.

POINT. *Seed-bud* superior; short; somewhat 3-cornered; the corners marked by a line. *Shaft* simple. *Summit* sharp.

S. VESS. *Capsule* very short; broad; of 3 lobes, 3 cells, and 3 valves.

SEEDS many; roundish.

ESS. CHAR. *Blos.* 6 *divisions; expanding. Sheath of several flowers. Rundle crowded. Capsule superior.*

OBS. In some species every other thread is broad, and the tip fixed in a fork at the end of the thread.

* *Stem-leaves flat. Rundles bearing capsules.*

round-headed AL'LIUM *Ampelop'rasum.* Stem with flat leaves. Rundle globular. Threads 3-pointed. Petals rough along the keel.—

Clus. i. 190, *repr. in Dod.* 690. 1, *Lob. obs.* 79. 1, *Ger. em.* 180. 2, *and cop. in Park.* 872. 3, *and J. B.* ii. 558.

Chives somewhat longer than the blossom. LINN.—Lateral *root* solid. *Blossoms* pale purple.

Isle of Holmes in the Severn-sea. P. July.

This

This is eaten along with other pot-herbs. It communicates its flavour to the milk and butter of cows that eat it.

** *Stem-leaves flat. Rundles bearing bulbs.*

AL'LIUM *arenar'ium*. Stem with flat leaves, and bulbs. Sheath of the leaves cylindrical. Sheath of the flower without any ſharp point. Threads with 3 points.— *ſand*

Fl. dan. 290.—*Cluſ.* i. 193, *repr. in Ger. em.* 187. 4, *cop. in Park.* 873. 5, *and J. B.* ii. 560.—[*Rupp. jen. ab. Hall.* 2. *Mr. Woodward.*]—(*H. ox.* iv. 14. 5, *is A. carinatum.*)

Bulbs and *bloſſoms* blue. *Chives* a little longer than the bloſſom. *Leaves* narrow, entire at the edge. LINN.—*Stem* 2 or 3 feet high. *Leaves* 3 or 4, ſheathing the lower part of the ſtem, the lower ones quickly withering, broad, edges hairy, or rather finely toothed, but the teeth not diſcernible without a glaſs. *Leaf-ſheaths* ſmooth, ſcored; ſcores of a deeper green. *Sheath* of 1 leaf, broad, ſhort, blunt. *Bulbs* numerous, deep purple. *Flowers* a few, on ſhort fruit-ſtalks, ſmall, purple, marked with a deeper line. Mr. WOODWARD.

Mountains of Weſtmoreland. [Sir James Lowther's Woods, by Lowther, Weſtmoreland, and paſtures adjacent. Mr. WOODWARD.] P. June. July.

AL'LIUM *carina'tum*. Stem with flat leaves, and bulbs. Threads awl-ſhaped.— *mountain*

Hall. de All. 2. 2, *in opuſc. at p.* 392.—*Fuchſ.* 738, *cop. in Trag.* 748. 3, *and Lonic.* 195. 1, *head expanding.*—*Cluſ.* i. 193. 2.—*Ger. em.* 187. 5.—*H. ox.* iv. 14. 5.—*Swert.* i. 60. 5, *cop. in Park. par.* 143. 3.

Sheath very long. LINN.

Meadows, paſtures, and rocks. P. June. July.

*** *Stem-leaves nearly cylindrical. Rundle bearing bulbs.*

AL'LIUM *vinea'le*. Stem with cylindrical leaves, and bulbs. Chives 3-pointed.— *crow*

Dod. 683. 1, *repr. in Ger. em.* 179. 1, *and cop. in Pet.* 66. 1, *and Park.* 871. 1.—*Fuchſ.* 737, *cop. in Lonic.* 196. 1.—*Trag.* 748.—*Fuchſ.* 738, *cop. in Trag.* 748. 3, *appear to me to be A. carinatum burſting into flower.*—*Matth.* 558. 1 *and* 3, *has flat leaves.*

Bulbs tapering, bowed back, often running out into long hair-like points, compacted into a cloſe head. *Bloſs.* ſmall, violet. *Threads* with 2 long briſtles projecting beyond the flower. LINN.—*Stem* about 2 feet high, below covered with the ſheaths of the leaves.

Leaves ſmooth, hollow, ſlender, very long. *Leaf-ſheaths* ſmooth, ſcored. *Sheath* of 1 leaf, broad at the baſe, ending in an awl-ſhaped point, about an inch long, ſcored with green lines. *Bulbs* numerous, white. *Bloſſoms* few, ſmall. Mr. WOODWARD.

Meadows and paſtures. [Near Norwich. Mr. CROWE.—Huntingdonſhire and Derbyſhire. Mr. WOODWARD.] P. June.

The young ſhoots are eaten in ſallads, or boiled as a pot-herb.

β. With a double head of bulbs.

Lob. obſ. 78. 2, *cop. in Park.* 871. *f.* 3, *and H. ox.* iv. 14. 4.

Near Worceſter. ST.

wild AL'LIUM *olera'ceum*. Stem with bulbs. Leaves rough, ſemi-cylindrical, furrowed on the under ſide. Chives ſimple.—

Hall. de All. 1. 2, *in opuſc. p.* 386.—*Cluſ.* i. 194. 1, *cop. in Ger. em.* 188. 6, *and H. ox.* iv. 14. 2.—*J. B.* ii. 561. 1.

Root a ſolid bulb. *Stem* 2 or 3 feet high, upright, or only a little bent towards the top, ſmooth, not ſcored, ſolid. *Leaves* hollow. *Bulbs* egg-ſhaped, forming a roundiſh knob; from between theſe ariſe ſeveral thread-ſhaped fruit-ſtalks, each ſupporting a ſingle flower, which is nodding; cylindrical, but ſomewhat bell-ſhaped. *Bloſs.* whitiſh green, with 3 dark purple ſtreaks on each petal. Very minute white dots, hardly viſible to the naked eye, are ſcattered over the whole plant. LINN.—*Leaves* and *leaf-ſheaths* deeply furrowed. *Bulbs* numerous. *Fruit-ſtalks*, ſome upright. *Bloſs.* pale, with purple lines. *Threads* fixed to the petals. *Seed-bud* priſm-ſhaped, of 6 angles. *Shaft* ſlender, longer than the bloſſom. Excepting that the *leaves* can hardly be called rough, correſponds very exactly with *A. oleraceum*. Mr. WOODWARD.

Meadows, paſtures, and amongſt corn. P. July.

The tender leaves are very commonly boiled in ſoups, or fried with other herbs.—Cows, Goats, Sheep, and Swine eat it.

**** *Leaves from the root. Stalk naked.*

Ramſon AL'LIUM *urſi'num*. Stalk naked, 3-ſquare. Leaves ſpear-ſhaped, on leaf-ſtalks. Rundle flat-topped.—

Fl. dan. 757.—*Fuchſ.* 739, *cop. in J. B.* ii. 566. 1, *and Trag.* 748. 2.—*Walc.*—*Matth.* 560, *cop. in Dod.* 683. 2, *which repr. in Lob. obſ.* 80. 2, *and Ger. em.* 179. 2; *and cop. again in Ger.* 141. 2, *and Pet.* 66. 8.—*H. ox.* iv. 15. 15.

Stalk below, ſemi-cylindrical. RETZ.—*Root-leaves* egg-oblong, as long as the ſtalk. *Sheath* falling off. *Flowers* to 20. *Threads* inſerted into the claws of the petals, ſhorter than the ſhaft. *Seeds* nearly egg-ſhaped, 1 in each cell. RELHAN.—*Bulbs* oblong. *Root-leaves*

leaves 2 to 4, on long leaf-ſtalks. *Sheath* oval, cloven. *Petals* ſpear-ſhaped, white. Mr. WOODWARD.—*Leaves* as long as the ſtalk. *Threads* fixed to the baſe of the petals, ſhorter than the ſhaft. W.

Ramſons.—Woods and hedges. P. May.

An infuſion in brandy is eſteemed a good remedy for the gravel. *Penn. tour.* 1772. *p.* 175.—Other plants that grow near it will not flouriſh.

Cows eat it; but it communicates its flavour to the milk.

AL'LIUM *Schœnop'raſum.* Stalk naked, as long as the leaves. Leaves cylindrical, awl-thread-ſhaped.— *chived*

Fuchſ. 635.—*Trag.* 742. 2.—*Lonic.* i. 194. 2.—*Dod.* 689, *repr. in Lob. obſ.* 77. 1, *Ger. em.* 177. 1.—*Ger.* 139. 1.—*H. ox.* iv. 14. *row* 1. 4.—*Matth.* 550, *cop. in Dod.* 689. 2, *and which repr. in Lob. obſ.* 78. 1.

Meadows and paſtures. By Faſt-Caſtle, on the borders of Berwickſhire, and in Weſtmoreland. P. June.

444. FRITILLA'RIA. Fritillary.

EMPAL. *Cup* none.

BLOSS. bell-ſhaped; expanding at the baſe. *Petals* 6; oblong; parallel. *Honey-cup* a hollow in the baſe of each petal.

CHIVES. *Threads* 6; awl-ſhaped; approaching the ſhaft. *Tips* 4-cornered; oblong; upright.

POINT. *Seed-bud* oblong; 3-ſided; blunt. *Shaft* ſimple; longer than the chives. *Summit* with 3 clefts; expanding; blunt.

S. VESS. *Capſule* oblong; blunt; with 3 lobes, 3 cells, and 3 valves.

SEEDS many; flat; outwardly ſemi-circular; in 2 rows.

ESS. CHAR. *Bloſſom of* 6 *petals; bell-ſhaped; with a cavity containing honey above the claws. Chives as long as the bloſſom.*

FRITILLA'RIA *Melea'gris.* All the leaves alternate. Stem with 1 flower.— *chequered*

Curt. iii. 36.—*Walc.*—*Jacq. auſtr.* v. *app.* 32.—*Park. par.* 41. 2.—*Cluſ.* i. 153. 1, *repr. in Ger. em.* 149. 1, *and cop. in Ger.* 122. 1.—*Cluſ.* i. 152, *repr. in Dod.* 233. 2, *and Ger. em.* 149. 2; *and cop. in Ger.* 122. 2.—*Swert.* i. 7. 4.

Honey-cup

Honey-cup oblong. LINN.—*Flowers* generally 1, ſometimes 2, and even 3. C. B. *pin.*—*Bloſs.* bellying at the baſe. CURT. ST.—*Root* bulbous, ſolid, ſmall for the ſize of the plant, throwing out numerous fibres beneath, and increaſing by off-ſets. *Stem* from the ſide of the root, 12 to 18 inch. high, cylindrical, ſmooth, bending at the top into an elegant arch. *Leaves* 3 to 5, ſhort, graſs-like, half embracing the ſtem, alternate, diſtinct. *Flower* drooping. *Petals* oval, the 3 outer bulging at the baſe, the 3 inner flat, of a dull red, chequered with a deeper colour, without any mixture of green or yellow. *Summit* deeply cloven. *Capſule*, angles blunt. Mr. WOODW.—*Stem* cylindrical, crooked. *Leaves* 4 to 6, ſpear-ſhaped. *Honey-cup* a fleſhy glandular ſubſtance connecting the chives to the petals. *Tips* nearly as long as the threads, of 2 cells. *Seed-bud*, corners blunt. WITH.—*Fruit-ſtalks* ſlender. *Bloſs.* nodding, chequered with purple, and greeniſh yellow. *Stalk* grows conſiderably longer after the flowering.

Fritillary. Chequered Daffodil, or Tulip. Snakeshead. Guinea-henflower.

Meadows and paſtures. Mawde Fields, near Riſlip Common, Middleſex; near Bury, Enfield; and in the meadows between Mortlake and Kew. [Between Laxfield and Stirrup-ſtreet, Suff. Mr. WOODWARD.—In a meadow near Blymhill, Staffordſhire, plentifully. Mr. DICKENSON.—Near Leiceſter. Dr. ARNOLD.]

P. April. May.

451. ORNITHOG'ALUM. Bethlemſtar.

EMPAL. *Cup* none.

BLOSS. *Petals* 6; ſpear-ſhaped; upright below the middle, but expanding and flat above; permanent; but fading.

CHIVES. *Threads* 6; upright; broadeſt at the baſe; ſhorter than the bloſſom. *Tips* ſimple.

POINT. *Seed-bud* angular. *Shaft* awl-ſhaped; permanent. *Summit* blunt.

S. VESS. *Capſule* roundiſh; angular; with 3 cells, and 3 valves.

SEEDS many; roundiſh.

ESS. CHAR. *Bloſſom of 6 petals; upright; permanent; from about the mid-way expanding. Every other thread broader at the baſe.*

OBS. The *threads* in ſome ſpecies are upright and flat; every other thread having 3 points, and the *tip* fixed upon the middle point. In other ſpecies theſe alternate threads are undivided.

* *All*

* *All the threads awl-ſhaped.*

ORNITHOG'ALUM *lu'teum*. Stalk angular, with 2 leaves. Fruit-ſtalks in rundles, undivided. LINN.—*Rather ſtem.* ST. *yellow*

Walc.—*Cluſ.* i. 188. 2, *repr. in Dod.* 222, *Lob. obſ.* 72. 3, *Ger. em.* 165. 2, *and cop. in Pet.* 66. 12.—*Fl. dan.* 378.*—*Fuchſ.* 169, *cop. in J. B.* ii. 622. 1.—*Ger.* 132. 2.—*Lonic.* 193. 1.—*H. ox.* iv. 13. 12.—*Swert.* i. 57. 3.—*Park. par.* 137. 7.—*(Trag.* 737. 2, *ſeems rather O. minus.)*

Root-leaf generally ſingle, longer than the ſtem. *Stem-leaves* ſometimes 3 or 4, unequal. 1 much larger. *Fruit-ſtalk* ſometimes ſolitary. *Petals* in 2 ſeries, the inner greeniſh yellow, the outer green. Mr. WOODWARD.

Meadows and paſtures. Woods on the banks of the Tees near Greta Bridge, and Bignal, Yorkſhire. R. *ſyn.* [and Rev. Mr. ZOUCH.]—Near Doncaſter and Kendal. [Under Malham Cove. Mr. WOOD.—In a meadow adjoining to the Copper Mills, Derby. Mr. WHATELY.] P. April.

The bulbous roots of all the ſpecies are nutritious and wholeſome, and thoſe of this ſpecies have been employed for food in a ſcarcity of proviſions.—Horſes, Goats, and Sheep eat it. Swine are not fond of it. Cows refuſe it.

ORNITHOG'ALUM *pyrena'icum*. Bunch very long. Threads ſpear-ſhaped. Fruit-ſtalks when in flower expanding, equal, but afterwards approaching the ſtalk.— *ſpiked*

Cluſ. i. 187. 1, *repr. in Dod.* 209. 1, *Lob. obſ.* 47. 3, *Ger. em.* 97, *and cop. in Ger.* 89, *and J. B.* ii. 627. 1.—*Park. par.* 137. 5.

Nearly 3 feet high. *Flower-ſcales* ſolitary, not embracing the ſtem, as long as the pedicles. Every other *chive* ſhorter. GOUAN. —*Stalk* 1½ or 2 feet high. *Fruit-ſtalks* ſlender. *Flower-ſcales* membranaceous at the baſe, broad, and half embracing the ſtalk, upwards awl-ſhaped. *Petals* narrow, expanding, pale yellow within, green without, with whitiſh margins. Mr. WOODWARD.

Meadows and paſtures. Near Aſhley, between Bath and Bradford; and near Chicheſter. P. June.

** *Threads alternately notched at the end.*

ORNITHOG'ALUM *umbella'tum*. Flowers in broad topped ſpikes. Fruit-ſtalks riſing above the top of the ſtalk. Threads widening at the baſe. LINN.—None of the threads cloven. WITH. SCOP. ST. *common*

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* Much larger than any ſpecimens I have ever ſeen. Mr. WOODW. ST. *Jacq.*

Jacq. auſtr. iv. 343.—*Ger.* 132. 1.—*Dod.* 221. 1, *repr. in Lob. obſ.* 72. 2, *Ger. em.* 165. 1, *and cop. in Swert.* i. 57. 4.—*(Matth.* 542, *if the plant, the leaves and ſtalk misfigured.)*

Root-leaves about 9. The loweſt *fruit-ſtalks* riſing higher than the reſt. A *flower-ſcale* at the baſe of each fruit-ſtalk. SCOP. WITH. —*Fruit-ſtalks* very long, broad. *Flower-ſcales* very large, white, membranaceous. Mr. WOODWARD.—*Petals* white, with a broad green ſtreak along the under ſide. *Threads* ſpear-ſhaped, flat, fleſhy; every other broader. *Seed-bud* with 6 blunt angles. *Shaft* cylindrical, with 3 blunt angles. WITH.

Woods, meadows, and paſtures in Norfolk. P. Apr. May.

452. SCIL'LA. Squill.

EMPAL. *Cup* none.

BLOSS. *Petals* 6; egg-ſhaped; greatly expanding; deciduous,

CHIVES. *Threads* 6; awl-ſhaped; half as long as the petals. *Tips* oblong; fixed ſide-ways.

POINT. *Seed-bud* roundiſh. *Shaft* ſimple, as long as the chives; falling off. *Summit* ſimple.

S. VESS. *Capſule* nearly egg-ſhaped; ſmooth; with 3 furrows, 3 cells, and 3 valves.

SEEDS ſeveral; roundiſh.

ESS. CHAR. *Bloſſoms of 6 petals; falling off. Threads thread-ſhaped.*

vernal SCIL'LA *ver'na.* Broad topped ſpike hemiſpherical, with floral-leaves, and but few flowers. Leaves awl-ſtrap-ſhaped, channelled. HUDS.—Flower-ſcales nearly as long as the flowers.* ST.—*Flowers* 3 *to* 8, *and in gardens* 6 *to* 16. See Hudſon's deſcription.

Fl. dan. 568.†—*Cluſ.* i. 188. 1, *repr. in Ger. em.* 166. 4.—*Park. par.* 137. 6.

Root bulbous, coated, brown, the ſize of a hazle-nut. *Stalk* 2 to 6 inches high, upright, cylindrical, leafleſs, even, ſmooth. *Leaves*

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* Add to the character of *S. bifolia*, Flower-ſcales very minute. Leaves blunt. HALL. ST.—And to the deſcription, Leaves very broad. HALL. ST.

† Correſponds exactly with the Corniſh ſpecimens, is referred in the Syſt. veg. to *S. bifolia*, but this it cannot be from its flower-ſcales being nearly as long as the flowers, in which as well as other reſpects it correſponds with the character of *S. verna*, though not referred to by Mr. Hudſon. ST.

Leaves ſeveral, pointed, nearly as long as the ſtalk. *Bloſſoms* pale blue. *Floral-leaves* permanent, membranaceous, hollow, pointed. HUDS.

Meadows and paſtures. Cliffs on the ſea ſhore in Angleſea and Wales; about St. Ives, and other places in Cornwall. I have received ſpecimens of it under the title of *S. bifolia*, but that ſpecies is not a native of theſe iſlands. HUDS.—Gloddaeth, Caernarvonſhire. [Near Redruth, Cornwall. Mrs. WATT.]

P. April. May.

SCIL'LA *autumna'lis*. Leaves thread-ſhaped. Flowers in broad-topped ſpikes. Fruit-ſtalks naked, aſcending, as long as the flowers.— *autumnal*

Cluſ. i. 185. 2, *repr. in Dod.* 219. 1, *Lob. obſ.* 53. 3, *Ger. em.* 110. 1, *and cop. in Ger.* 98. 4.

Bloſs. about the ſize of a pea. LINN.——*Root* bulbous, coated. *Leaves* numerous, much ſhorter than the ſtalks. Mr. WOODW.—*Bloſſoms* blue.

Dry paſtures. St. Vincent's Rock, near Briſtol; Lizard Point, Cornwall; Black Heath; near Ditton, on Moulſey Hurſt, over againſt Hampton Court. [Common, near Chace Water Mine, Cornwall. Mr. WATT.] P. Aug. Sept.

455. ANTHER'ICUM. Spiderwort.

EMPAL. *Cup* none.
BLOSS. *Petals* 6; oblong; blunt; greatly expanded.
CHIVES. *Threads* 6; awl-ſhaped; upright. *Tips* ſmall; with 4 furrows; fixed ſide-ways to the threads.
POINT. *Seed-bud* with 3 corners, but ſlightly marked. *Shaft* ſimple; as long as the chives. *Summit* blunt; 3-cornered.
S. VESS. *Capſule* egg-ſhaped; ſmooth; with 3 furrows, 3 cells, and 3 valves.
SEEDS numerous; angular.
ESS. CHAR. *Bloſs. of* 6 *petals; open. Capſule egg-ſhaped.*

* Spiderworts. *Leaves channelled. Threads for the moſt part ſmooth.*

ANTHER'ICUM *ſero'tinum*. Leaves flattiſh. Stalk with 1 flower.— *Saffron*

Jacq. auſtr. v. 38.—*Ray* 17. 1. *at p.* 474.—*J. B.* ii. 663. 1.

Root

Root oblong, covered with ſcales the remains of dead leaves. *Stalk* with 3 or 4 floral-leaves or leaves, ſpear-ſhaped, alternate, very minute, ſheathing. No *flower-ſheath*. *Flower* beneath. *Petals* with tawny lines, and yellow claws. *Threads* not woolly. LINN.

Mountain Saffron.

On high mountains, as on Snowdon, and on the mountains in the neighbourhood of Llanberrys on the weſt ſide of Trigvylchau. RAY.—Rocks on Crib y Diſtil. HUDS. P. April. May.

** Narthecíums. *Leaves ſword-ſhaped.*

Lancaſhire ANTHER'ICUM *oſſif'ragum*. Leaves ſword-ſhaped. Threads woolly.—

Narthecium oſſifragum. HUDS. which ſee.

ſcottiſh ANTHER'ICUM *calycula'tum*. Leaves ſword-ſhaped. Cups with 3 lobes. Threads ſmooth. Shafts 3.—

Toſieldia paluſtris. HUDS. which ſee.

Remarkable as a Liliaceous plant in having a cup. In external appearance it accords ſo exactly with the *A. oſſifragum*, that ſo far from removing it from that natural order, we are obliged to place them in the ſame genus, notwithſtanding *its 3-cornered empalement, the abſence of a ſhaft, 3 ſeed-buds, and its naked threads*. LINN.

NARTHE'CIUM. *(Moehr. and Hudſ.)* Kingſpear.

EMPAL. none.

BLOSS. *Petals* 6; equal; ſpear-ſhaped; pointed; nearly upright; permanent; (ſtiff; widely expanding; after bloſſoming upright; bluntiſh at the point. ST.)

CHIVES. *Threads* 6; awl-ſhaped; woolly. *Tips* ſmall; fixed ſide-ways.

POINT. *Seed-bud* 3-ſquare. *Shaft* none. *Summit* blunt; (oblong. ST.)

S. VESS. *Capſule* egg-ſhaped; pointed; 3-ſquare; 3 cells, 3 valves.

SEEDS numerous; chaff-like; (cylindrical, tapering to a point each way. ST.) HUDS.

ESS. CHAR. *Bloſs. 6 petals; expanding; permanent. Shaft* 0. *Capſule egg-ſhaped Seeds with tail-like appendages at each end*. ST.

OBS. Moehringius and Mr. Hudſon appear to me to have done well in making this a diſtinct genus. Linnæus urges indeed that

" it

" it is connected to ſeveral of the Anthericums in its hairy " threads," but acknowledges at the ſame time that it " differs " from them in having a *pyramidal ſeed-bud, chaff-like ſeeds, and a* " *permanent bloſſom*," circumſtances ſurely ſufficient to conſtitute a diſtinct genus. Add to which that its habit is totally diſtinct. St.

NARTHE'CIUM *oſſif'ragum*. Huds. St. *Lancaſhire*

Fl. dan. 42.—*Cluſ.* i. 198. 1, *repr. in Dod.* 208. 2, *Lob. obſ.* 47. 1, *Ger. em.* 95. 2, *and cop. in J. B.* ii. 633. 2, *H. ox.* iv. 1. 7, *and Pet.* 66. 9.—*(Gmel.* i. 18. 2, *is Anthericum calyculatum. ib.* 1. *in Hudſ. an error of the preſs for* 2. *Mr. Woodward. St.)*

Threads bearded. Linn.—*Leaves* ſometimes ſhort, and ſword-ſhaped, ſometimes long, and graſs-like, ſcored, with prominent ribs. *Petals* yellow within, green without, with yellow edges. Mr. Woodward.—*Stem* cylindrical, 4 to 6 inches high. *Root-leaves* ſtrap-ſpear-ſhaped, flat, ſcored. *Stem-leaves* lying cloſe to the ſtem. *Flower-ſcales*, 2 to each fruit-ſtalk, ſpear-ſhaped, alternate, concave. *Petals* ſtrap-ſpear-ſhaped, a little concave, greatly expanding, greeniſh on the outſide, of a full yellow within. *Threads* yellow. *Tips* ſcarlet. With. St.—*Stem* aſcending, 4 inch. to a foot high. *Leaves* all bowed one way in the ſame direction as the ſtem. *Stem-leaves* ſometimes like the root-leaves, and above 2 inches long, but generally reſembling ſheath-like floral-leaves. *Flowers* in a terminating bunch, upright. *Flower-ſcales* awl-ſhaped, the lower at the baſe of the fruit-ſtalk, and nearly as long, the upper thrice as ſmall. *Petals*, the 3 outer awl-ſhaped, the inner oblong-ſtrap-ſhaped. *Threads* ſaffron-coloured, covered with thick white wool; the wool hair-like, knotted like a chain. *Summit* ſlightly nicked. *Capſule* ſpear-egg-ſhaped. *Seeds* oblong, tapering each way into briſtle-ſhaped tails nearly twice as long as the ſeed; diſpoſed lengthways and nearly as long as the ſeed-veſſel. St.

Aſphodelus Lancaſtriæ. Ger. em. 96. *n.* 2.—*Lancaſhire, or Baſtard Aſphodel.*

Turf bogs. [Derſingham Moor, Norfolk. Mr. Crowe.—Bogs in the north very common. Mr. Woodward.——Birmingham Heath, With. St.] P. July. Aug.

It is believed in Sweden to be noxious to ſheep, and has been ſuppoſed to ſoften the bones of animals that eat it, but this opinion wants confirmation.

Cows and Horſes eat it. Sheep and Swine refuſe it.

457. ASPA-

457. ASPAR'AGUS. Asparagus.

EMPAL. *Cup* none.
BLOSS. *Petals* 6; oblong; permanent; connected by the claws into an upright tube. The 3 inner petals alternate; reflected at the top.
CHIVES. *Threads* 6; thread-shaped; standing on the petals; upright; shorter than the blossom. *Tips* roundish.
POINT. *Seed-bud* turban-shaped; with 3 corners. *Shaft* very short. *Summit* a prominent point.
S. VESS. *Berry* globular; with 3 cells and a dot at the end.
SEEDS 2; smooth; roundish; but angular on the inside.
ESS. CHAR. *Blos. with 6 divisions; upright. The 3 inner petals bent back at the point. Berry 3 cells, and 2 seeds.*
OBS. It is not easy to say whether the blossom is composed of 1 or 6 petals. Flowers pendant, though the pointal very short.

common ASPAR'AGUS *officina'lis*. Stem herbaceous, cylindrical, upright. Leaves bristle-shaped. Leaf-scales in pairs. LINN.—Solitary. ST.

Ludw. 78.—*Fl. dan.* 505.—*Mill.* 55.—*Sheldr.* 83, *fertile plant.*—*Matth.* 477.—*Fuchs.* 58, *cop. in Trag.* 222, *and J. B.* iii. 726. 1.—*Ger.* 949.* 1.—*Blackw.* 332.—*Clus.* ii. 179, *repr. in Dod.* 703. 1, *Lob. obs.* 458, *and Ger. em.* 1110. 1, *and cop. in Park.* 454. 3.—*par.* 501. 6.—*Lonic.* 141. 2.

Stems herbaceous, upright, panicled. *Leaf-scales*, the outer solitary, with 2 smaller ones within, from between which rise 3, and sometimes 4 and 5 strap-shaped *leaves*. This is the case in the upper part of the branches where there are no flowers, but in the lower part of the branches a small branch rises in their stead. *Fruit-stalks* in pairs, limber, bearing 1 flower, pendant, with a jointed knot. *Blos.* bell-shaped; inner petals longer. In the cultivated varieties the *chives and pointals are not on different plants*. LINN. The wild varieties have *chives and pointals on different plants*. GOUAN.—The cultivated as well as wild varieties have *chives and pointals on different plants*. LEERS.—*Stem* upright, or lying flat. *Flowers*, some with only chives, others with only pointals, and others again with chives and pointals. *Berries* with sometimes only 1 seed. HUDS.—*Branches* alternate, with props, not leaves, at the base. *Props* solitary, membranaceous, browniſh; those at the base of the branches triangular-egg-shaped, tapering out into a point; the base

baſe alſo running down into a pointed prominence; thoſe at the baſe of the leaves heart-egg-ſhaped, pointed, ragged at the edge, and often cracking at the ſides, its baſe incloſing the whole bundle of leaves; the 2 inner ones deſcribed by Linnæus not to be found. *Duſt* and *ſeed* produced on different plants. *Flowers of the plants producing duſt* nearly as large again. *Chives* nearly as long as the petals. *Threads* adhering to the petals for half their length. *Tips* oblong, upright, orange. *Duſt* orange. *Seed-bud* half as long as the threads, and as large as the other at the ſame ſtage of growth. *Shaft* none. *Flowers of the plants producing ſeeds* not ſo conſpicuous, and of a greener and browner hue. *Chives* not half ſo long as the petals. *Tips* whitiſh, membranaceous, barren. *Duſt* none. *Seeds* generally 2, but ſometimes 3. *Fructification* examined in cultivated plants, the reſt from the wild and cultivated. ST.—*Bloſs.* yellowiſh green. *Berries* red.

Aſparagus. Sparagus, corruptly *Sparrowgraſs. Sperage.*

Meadows and rocks on the ſea coaſt. Lizard Point, Graveſend, and in the marſhes below Look's Folly, two miles from Briſtol; about Harwich and Greenwich. RAY.—Iſle of Portland. HUDS. —[In the Salt Marſhes below King's Weſton, near Briſtol, with Dr. BROUGHTON. ST.] P. July.

The young ſhoots of this plant, in its cultivated ſtate, are very univerſally eſteemed for their flavour and nutritious qualities.—They impart to the urine the ſcent of water in which they have been boiled.—The *Sparagus Chryſomela* lives upon it.

459. CONVALLA'RIA. Solomons-ſeal.

EMPAL. *Cup* none.
BLOSS. 1 *petal;* bell-ſhaped; gloſſy. *Border* with 6 clefts; *ſegments* blunt; expanding and reflected.
CHIVES. *Threads* 6; awl-ſhaped; ſtanding on the petal; ſhorter than the bloſſom. *Tips* oblong; upright.
POINT. *Seed-bud* globular. *Shaft* thread-ſhaped; longer than the chives. *Summit* blunt; 3-cornered.
S. VESS. *Berry* globular; with 3 cells; ſpotted before it is ripe.
SEEDS ſolitary; roundiſh.
ESS. CHAR. *Bloſſoms with* 6 *clefts. Berry ſpotted; with* 3 *cells.*

* Lily of the Valley. *Bloſſoms bell-ſhaped.*

CONVALLA'RIA *maja'lis.* Stalk naked.— *Lily*

Curt. v. 51, *flowers the beſt.*—*Ludw.* 87, *leaves the beſt.*—*Blackw.* 70.—*Matth.* 875.—*Sheldr.* 25.—*Fl. dan.* 854.—*Ger.* 331. 2, *cop. in Pet.* 44. 7.—*Park.* 251. 1, *cop. in H. ox.* xiii. 4. 1.—*Ger. em.* 410. 2.—*Dod.* 205. 1, *repr. in Lob. obſ.* 87. 1, *Ger. em.* 410. 1.—*Walc.*—*Ger.* 331. 1,—*Fuchſ.* 241, *cop. in J. B.* iii. 531. 3, *and Trag.* 572.—*Lonic.* i. 183. 2.

Bloſſoms white, highly fragrant. LINN.—*Plant* ſmooth. *Root-ſcales* ſheathing, oblong, blunt, ſcored, fleſh-coloured. *Leaves* 2, ſpear-ſhaped, pointed, very entire, as long as the ſtalk. *Leaf-ſtalks* embracing the ſtem. *Stalk* 2-edged, 9 inches high, with many flowers. *Fruit-ſtalks* thread-like, ſhort, with 1 flower. *Flower-ſcales* ſpear-ſhaped, membranaceous, white, at the baſe of the fruit-ſtalks, as ſhort again as the fruit-ſtalks. *Flowers* white, ſweet ſcented. LYONS.—*Leaves* elliptical, generally 2. *Flowers* few, growing from one ſide. *Fruit-ſtalks* arched. *Flower-ſcales*, one at the baſe of each fruit-ſtalk, ſpear-ſhaped, membranaceous. *Bloſſoms* contracted at the mouth; ſegments reflected at the edge. *Berries* red. Mr. WOODWARD.

Lily of the Valley. May Lily.

Woods and heaths. Near Hampſtead. [Woods in Norfolk. Mr. CROWE.]

The flowers highly fragrant, but when dried of a narcotic ſcent. Reduced to powder they excite ſneezing. An extract prepared from the flowers, or from the roots, partakes of the bitterneſs, as well as of the purgative properties of aloes. The doſe from 20 to 30 grains. A beautiful and durable green colour may be prepared from the leaves by the aſſiſtance of lime.

Sheep and Goats eat it. Horſes, Cows, and Swine refuſe it.

** Solomons-ſeal. *Bloſſoms funnel-ſhaped.*

ſweet CONVALLA'RIA *Polygona'tum.* Leaves alternate, embracing the ſtem. Stem 2-edged. Fruit-ſtalks from the boſom of the leaves, ſeldom ſupporting more than 1 flower.—

Ludw. 47.—*Fl. dan.* 337.—*Cluſ.* i. 276. 1, *repr. in Dod.* 346. 1, *Ger. em.* 904. 3, *and cop. in J. B.* iii. 529. 2, *Park.* 696. 3, *fig.* 1*ſt*, *H. ox.* xiii. 1. 4, *Pet.* 44. 6, *and Barr.* 711. 1.—*Blackw.* 251. 2.—*Ger.* 756. 1.

Stem from a ſpan to near a foot high, of a harder texture than the *multiflora*. *Flowers* large, ſweet ſcented. LINN.—*Berries* black. PET. Mr. WOODWARD.—*Stem* angular, twiſted. *Leaves* oval-ſpear-ſhaped, half embracing the ſtem. *Flowers*, ſometime 2, on long fruit-ſtalks, hanging down on the ſide oppoſite to the direction of the leaf, much larger than thoſe of the other two ſpecies, white,

white, with a green line running down each ſegment; ſegments rather bent in. Mr. Woodw.—*Stems* ſometimes 3-edged. *Bloſs.* greeniſh white. With.

Sweet Smelling Solomons-ſeal.

Fiſſures of rocks near Wherf, Settle, and Skipton, Yorkſhire. [Rocky part of Syke's Wood, near Ingleton, Yorkſhire. Curt.]

P. May. June.

In a ſcarcity of proviſions the roots have been made into bread. Sheep and Goats eat it. Horſes, Cows, and Swine refuſe it.

β. Huds. Solomons-ſeal with white Hellebore leaves and a purpliſh ſtalk. Ray.

Woods on the north of Mendip Hills. *ib.*

CONVALLA'RIA *multiflo'ra.* Leaves alternate, embracing the ſtem. Stem cylindrical. Fruit-ſtalks from the boſom of the leaves, ſupporting ſeveral flowers.— *common*

Mill. 101. 1.—*Walc.*—*Fl. dan.* 152.—*Fuchſ.* 585, *cop. in J. B.* iii. 529. 1.—*Lonic.* i. 170. 3.—*Cluſ.* i. 275. 2, *repr. in Dod.* 345. 1, *Lob. obſ.* 368. 2, *Ger. em.* 903. 1, *and cop. in Park.* 696. 3, *H. ox.* xiii. 1. *row* 3. 1, *and Pet.* 44. 5.—*Blackw.* 251. I. 1, 5, 7.—*Trag.* 399.—*Matth.* 954, *cop. in Ger.* 756. 3.

Berries red. Petiv. and Trew in Blackw.—black. J. B. Pollich. Mr. Woodward.—*Stem* above ſomewhat twiſted and angular from the edges of the leaves running down, below cylindrical, or nearly ſo. *Lower-leaves* oval; *upper* oval-ſpear-ſhaped, half embracing the ſtem. *Fruit-ſtalks* branched, uſually with 2 flowers above, 3 lower down, frequently 4 at bottom, and in gardens more. *Flowers* ſmaller, and ſegments more pointed than in *C. Polygonatum*, white tipped with green. Mr. Woodward.—*Fruit-ſtalks* with from 3 to 7 flowers. St.

Woods. Bramdean, Hampſhire; Roehill, Kent; about High Wickham, Bucks; Copſe at Gorleſtone, Suffolk. Mr. Wigg.

P. May. June.

Solomons-ſeal.

The young ſhoots are eaten by the Turks as Aſparagus, and the roots have been made into bread as the *C. Polygonatum.* Linn.

Cows, Goats, and Sheep eat it.

β. *Dwarf Engliſh Solomons-ſeal.* Ray.

Woods in Wiltſhire. *ib.*

461. HYACIN'THUS. Hyacinth.

EMPAL. *Cup* none.
BLOSS. 1 *petal*; bell-ſhaped. *Border* with 6 cleſts; reflected. *Honey-cups*; 3 pores filled with honey at the point of the ſeed-bud.
CHIVES. *Threads* 6; awl-ſhaped; rather ſhort. *Tips* approaching.
POINT. *Seed-bud* roundiſh; but with 3 edges, and 3 furrows. *Shaft* ſimple, ſhorter than the bloſſom. *Summit* blunt.
S. VESS. *Capſule* nearly cylindrical, with 3 corners, 3 cells, and 3 valves.
SEEDS 2 for the moſt part, roundiſh.
ESS. CHAR. *Bloſſoms bell-ſhaped, 3 honey-cup pores on the ſeed-bud.*

Harebell HYACIN'THUS *non-ſcrip'tus.* Bloſſoms bell-ſhaped, with 6 diviſions, the ends rolled back. LINN.—Bloſſoms cylindrical-bell-ſhaped. Floral-leaves in pairs. HUDS.

Curt. ii. 24.—*Cluſ.* i. 177. 1, *repr. in Dod.* 216. 1, *Lob. obſ.* 53. 2, *Ger. em.* 111. 1, *and cop. in Ger.* 99. 1, *and J. B.* ii. 586. —*Walc.*—*Park. par.* 125. 5.—*Swert.* 13. 1, 2, 3, *and* 4.—*(Blackw.* 61, *and H. ox.* iv. 11. 8, *not the plant.)*

Floral *leaves* generally longer than the bloſſoms. *Summit* moiſt with a drop of liquor. *Bloſſoms* blue. LINN.—The honey-cup pores not to be found. WITH. RELH.—*Flowers* drooping, which diſtinguiſhes it from the *Scilla campanulata* BANKSII, a plant often found in our gardens, and bloſſoming at the ſame time. CURT. ST.—*Leaves* flaccid, graſs-green, bending downwards. Thoſe of *S. campanulata* are upright, ſtiff, ſea-green, ſcored, reſembling thoſe of the Narciſſus. *Flowers* have a peculiar ſcent, thoſe of *S. camp.* different. *Threads* adhering longitudinally to the ſegments of the bloſſom, every other adhering almoſt to the tips. It appears to me to have more of the habit and even ſtructure of *Scilla* than of *Hyacinthus.* ST.

Harebell. Engliſh Hyacinth.
Woods and hedges. P. May.

The freſh roots are poiſonous. They may be converted into ſtarch.—*Phalæna Plantaginis* lives upon it.

white 2. Bloſſoms clear white. RAY. ST.
Scadbury Park, Kent. RAY.—Near Worceſter. ST.

fleſh coloured 3. Bloſſoms fleſh-coloured. RAY. WITH. ST.

468. AC'ORUS Myrtlegrafs.

EMPAL. *Spike-ſtalk* cylindrical; undivided; covered by the florets. *Sheath* none. *Cup* none.

BLOSS. *Petals* 6; blunt; concave; flexible; thicker upwards, and generally lopped.

CHIVES. *Threads* 6; rather thick; ſomething longer than the petals. *Tips* thick; terminating; double; connected.

POINT. *Seed-bud* bellying; oblong; as long as the chives. *Shaft* none. *Summit* a prominent point.

S. VESS. *Capſule* ſhort; triangular; tapering each way; blunt. Cells 3.

SEEDS ſeveral; oblong-egg-ſhaped.

ESS. CHAR. *Spike-ſtalk cylindrical; covered with florets. Bloſſom of 6 petals; naked. Shaft none. Capſ. 3 cells.*

AC'ORUS *Cal'amus.*— *ſweet*

Ludw. 34.—*Leers* 13. 12, *fructification and ſpike.*—*Blackw.* 466.—*Cluſ.* i. 231. 2, *repr. in Dod.* 249. 3, *Ger. em.* 62. 1, *and cop. in Park.* 140, *and J. B.* ii. 734.—*H. ox.* viii. 13. 4.—*C. B. th.* 626.—*Dod.* 249. 2, *repr. in Lob. obſ.* 30. 1, *and Ger. em.* 62. 2.—*Cluſ.* i. 231. 1, *repr. in Lob. obſ.* 30, 2, *two laſt not in flower.*

Root horizontal. *Leaves* ſword-ſhaped. *Spike* lateral, oblong. LYONS.—*Leaves*, one edge waved, the other even. Mr. WOODWARD.—*Root* ½ to 1 inch diameter, often 1½ foot long or more, ſending out a number of long coarſe fibres. The old one decays every year, but 2 young ones ſhoot out from the crown of it. *Leaves* ſword-ſhaped, ſheathing one another, ſome plaited in a ſerpentine line. *Spike* proceeding from the edge of the leaf. *Petals* ſkinny, thin, crowned with a kind of horizontal hat. *Stem* flatted, bordered with a leafy edge, and above the inſertion of the ſpike expanding into a leaf. *Threads* flat, oblong. WITH.—*Petals* oblong, ſlightly keeled, of a thicker griſtly ſubſtance at the end, which is bent obliquely inwards, flat, and generally 3-ſided. *Threads* ſtrap-ſhaped. *Tips* yellow, narrower than the threads. ST.

Myrtle Flag. Sweet Smelling Flag, or Calamus.

Banks of rivers with a muddy bottom. R. Yare, near Norwich. Hedly in Surry, in Cheſhire, near Cambridge, Hounſlow Heath, near Harefield. [R. Waveney, near Bungay, Suffolk. Mr. WOODWARD.—R. Avon, near Perſhore. Mr. BALLARD.—R. at

Tamworth, at the bottom of Mr. Oldershaw's garden. With.] P. May. June.

The root powdered might supply the place of our foreign spices. It is our only native true aromatic plant. Linn. The powder of the root has cured agues when the Peruvian Bark has failed. The roots have a strong aromatic smell, and a warm, pungent, bitterish taste. The flavour is greatly improved by drying. They are commonly imported from the Levant, but those of our own growth are full as good. The Turks candy the roots, and think they are a preservative against contagion.

Neither Horses, Cows, Goats, Sheep, or Swine will eat it.

471. JUN'CUS. Rush.

Empal. *Husk* 2 valves. *Cup* 6 leaves; oblong; tapering; permanent.

Bloss. none; unless you call the leaves of the coloured cup petals.

Chives. *Threads* 6; hairlike; very short. *Tips* oblong; upright; as long as the cup.

Point. *Seed-bud* 3-cornered, tapering. *Shaft* short; thread-shaped. *Summits* 3; long; thread-shaped; woolly; bent inwards.

S. Vess. *Capsule* covered; 3-cornered; with 1 cell, and 3 valves.

Seeds several; roundish.

Ess. Char. *Empal.* 6 *leaves.* *Blos.* 0. *Capsule* 1 *cell.*

Obs. Empalement brown, or approaching to black, where it is not expressed to be otherwise. With.—Horses eat the tops when young, but leave them when full grown. St.

* *Straws naked.*

sea JUN'CUS *acu'tus.* Straw nearly bare, cylindrical, sharp-pointed. Panicle terminating. Fence of 2 leaves, thorny.

Barr. 203. 2.—*C. B. pr.* 21. 2, *repr. in th.* 173, *and cop. in Park.* 1193. 4.—*H. ox.* viii. 10. 15.—(*J. B.* ii. 520. 3, *is, I suspect, a different plant.*)

Panicle crouded, close, from 2 to 3 inches long. *Fence*, the sheath of the *outer leaf* from 1½ to 2 inches long, terminating in a stiff, pungent leaf, 1 or 1½ inch long; that of the *inner leaf* about 1 in. long, terminating in a sharp point about ½ in. long. Scheuch. *Pricking large Sea-rush.*

Sand Hills on the sea coast of Merionethshire. Ray.

β. Panicle

β. Panicle long, not ſpreading, from 3 to 6 inches long, conſiſting of 2 principal branches, one of which is from 3 to upwards of 6 inches long, the other very ſhort, immediately dividing into leſſer branches. *Fence*, the ſheath of the *outer leaf* about 1 inch long, terminating in a very ſharp-pointed pungent leaf, from 3 to upwards of 6 inches long; that of the *inner* about ½ inch long, ending in a finely tapering leaf from ½ to 1 inch long. SHEUCH. ST.—*Fence*, leaves extremely rigid and ſharp. Grows in tufts near 6 feet high. I am doubtful whether it be not a variety of *J. inflex.* Mr. WOODWARD.

Park. 1193. 7, *well done.* (*Mr. Woodward. St.*)—*H. ox.* viii. 10. 14.

Sea Hard Ruſh.

Salt marſhes, about Maldon, Eſſex, and weſt coaſt of Wales. [Coaſt of Norfolk. Mr. CROWE. Mr. WOODW. and Lancaſhire. Mr. WOOD.] P. July. Aug.

JUN'CUS *conglomera'tus.* Straw naked, very ſtraight. Head lateral.— *round headed*

Matth. 1036.—*Leers* 13. 1, *fructification and head.*—*J. B.* ii. 520. 2.—*H. ox.* viii. 10. 7.—*Park.* 1191. 3.—

Nearly allied to the *J. effuſus.* LINN.—*Empal. huſk*, valves ſmall, ſkinny. *Cup*, leaves ſkinny at the edge. *Seeds* kidney-ſhaped. WITH.—*Chives* always 3, never 6. LEERS. RELHAN. ST.—*Seeds* oblong, ſomewhat boat-ſhaped. ST.

Moiſt meadows and heaths. P. July. Aug.

Uſed to make wicks for watch lights, and the pith in toys.

JUN'CUS *effu'ſus.* Straw naked, quite ſtraight. Panicle lateral.— *ſoft*

Leers 13. 2, *panicle and fructification.*—*Dod.* 605. 2, *repr. in Lob.* 43. 2, *Ger. em.* 35. 1.—*H. ox.* viii. 10. 4.—*Park.* 1191. 2.—*J. B.* ii. 521. 1.—*C. B. th.* 182.—(*J. B.* ii. 520. 1, *is J. inflexus.*)

Chives 3. RELHAN.

Seaves.—Wet meadows and paſtures. P. June.—Aug.

Ruſhes are ſometimes uſed to make little baſkets. The pith of this and the preceding ſpecies is uſed inſtead of cotton to make the wick of ruſh-lights.

Horſes and Goats eat it.

β. HALL. and HUDS. *Juncus inflexus*, which ſee.

JUN'CUS *inflex'us.* Straw naked, membranaceous, and bowed in at the end. Panicle lateral.— *hard*

Leers 13. 3.—*Ger.* 31. 2.—*C. B. th.* 184, *cop. in H. ox.* viii. 10. 25.—*H. ox. ib.* 13.—*Dod.* 605. 3, *repr. in Lob. obſ.* 43. 3, *Ger. em.* 35. 4.—*Barr.* 204.—*J. B.* ii. 520. 1.—(521. 1, *is J. effuſus.*)

Chives 6. RELHAN.

By no means a variety of *J. effuſus.* Mr. WOODWARD.

Paſtures and road ſides in a moiſt ſoil. P. July,

A Horſe refuſed it, ST.

leaſt JUN'CUS *filifor'mis.* Straw naked, thread-ſhaped, nodding. Panicle lateral.—

Leers 13. 4.—*Scheuch.* 7. 11.—*Pluk.* 40. 8.

Straw ſlender, 6 inches high. RAY.—So as hardly to ſupport itſelf. *Panicle* not always expanded, about the middle of the ſtraw.

Turfy bogs on mountains. Not far from Ambleſide. RAY. P. Aug.

trifid JUN'CUS *trif'idus.* Straw naked, terminated by 3 leaves and flowers. LINN.—*Rather,* Leaves 3 at the end of the ſtraw, with torn leaf-ſcales. ST.*—*Flowers ſometimes* 1 *and* 2. LIGHTF.—*And* 4. Mr. WOODWARD.

Lightf. 9. 1. *at p.* 186.—*Jacq. vind.* 4. 1.—*Fl. dan.* 107.—*C. B. pr.* 22. 2, *repr. in th.* 185. 2, *the head cop. in Park.* 1195. 3.—*J. B.* ii. 521. 1.

The ſpecimens I found had all ſingle flowers. LIGHTF.—Specimen from Scotland with 4 flowers. *Leaves* ſheath-like at the baſe; *ſheath* in the larger ſpecimens membranaceous at the point and edges; point torn into fine hair-like ſegments; in the ſmaller conſiſting of 2 egg-awl-ſhaped brown leaf-ſcales, one on each ſide, one lapping over the other and incloſing the ſtraw, torn into long whitiſh briſtle-ſhaped ſegments. ST.

Bogs on the ſummits of the Highland mountains. P. June,

moſs JUN'CUS *ſquarro'ſus.* Straw naked. Leaves briſtle-ſhaped. Heads congregated, leafleſs. LINN.—*Rather,* Panicle terminating. *Flower-ſheaths ſometimes running out into leaves.* ST.

Fl. dan. 430.—*H. ox.* viii. 9. 13.—*Park.* 1193. 2.—(*Ger.* 18. 4, *cop. in C. B. th.* 78.—*Ger. em.* 21. 4, *cop. in Park.* 1270. 6, *the middle ſtraw has a terminating ſpike like the barren ſpike of a Carex.*

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* Foliis tribus terminalibus, ſtipulis laceris. ST.

The

The whole *plant* ſtiff. *Leaves* expanding. LINN.

Moſs Ruſh. Gooſe Corn.

Barren turfy bogs on heaths. P. June. July.

Horſes eat it. The leaves lying cloſe to the ground elude the ſtroke of the ſcythe. It indicates a barren ſoil.

** *Straws leafy.*

† *Juncus trifidus*, which ſee above.

JUN'CUS *compreſ'ſus*. CURT. cat. n. 628. *flat-ſtalked*

JUN'CUS *articula'tus*. Leaves with knotty joints. *jointed*

Petals blunt.—

α. *aquaticus*. LINN.

Leaves compreſſed. Panicle once divided. HALL.

H. ox. viii. 9. 2. *f.* 9, *the* 3 *right hand ſtraws.—C. B. pr.* 12. 1, *repr. in th.* 76. 2, *and cop. in Park.* 1270. 5.—*Ger. em.* 22. 9.—*J. B.* ii. 521. 2.—*Ger.* 12. 1.

The *leaves* are not ſo properly jointed as ſeparated tranſverſely by partitions, which become viſible when preſſed by the fingers or held againſt the light. LINN.—*Leaves* in bundles, ſheathing each other, thin, ſcored and membranaceous at the baſe; awl-ſhaped towards the top. *Flowers* about 6 in a head. *Empal.* purpliſh brown. *Chives* ſhorter than the empalement. *Tips* ſtraw-coloured. *Pointal* as long as the empalement. *Summits* purpliſh. *Seed-bud* with 3 furrows, corners blunt. WITH.

Wet meadows and paſtures. P. July. Aug.

β. Producing bundles of leaves in place of flowers. LINN.—Leafy ſpikes reddiſh, occaſioned by an inſect having taken up its abode in it. RAY.—Of the *Coccus* tribe. LIGHTF.—I have ſeen them abounding with minute inſects. WITH. ST.—The *Acarus gymnopterorum*, ſome very ſmall ones not larger than Cheeſe Mites, and a maggot of the Fleſh Fly. *Flowers* as uſual from the ſame roots. ST.

C. B. pr. 12. 2, *repr. in th.* 77.—*H. ox.* viii. 9. 2. *f.* 9, *left hand ſtem.*

Bogs. Sept.

γ. *Sylvaticus*. LINN.—Leaves cylindrical. HALL.

H. ox. viii. 9. 1. *f.* 8.

Whether this and α be ſpecifically diſtinct, or merely varieties from difference of ſoil, is a ſubject of future enquiry. LINN.—They appear to be varieties. RETZ. ST.—And thoſe not conſtant. RETZ.

γ. HUDS. Mr. WOODW. ST.—Leaves briſtle-ſhaped. Capſules much ſmaller. RAY.

H. ox.

H. ox. viii. 9. *row* 2. 3.

Sandy heaths. [Bogs on Birmingham Heath. ST.]

viviparous 4. Leaves briſtle-ſhaped. Heads roundiſh, with leafy bulbs intermixed. ST.

H. ox. ib. 4.—*Scheuch.* 7. 10.—*Pluk.* 32. 3.

Stem to 10 inches high. *Leaves* with knotty joints. I at firſt imagined it, with Ray and Haller, to be a diſtinct ſpecies, not being able to diſcover the knots in the leaves, but, on a more attentive examination, I was ſatisfied of their exiſtence. ST.

Juncus viviparus. CURT. *cat. n.* 629.

Bogs on Birmingham Heath. P. Aug. ST.

5. Huſks white. Not common. Mr. WOODWARD.

bulbous JUN'CUS *bulboſus.* Leaves ſtrap-ſhaped, channelled. Capſules blunt.—

Leers 13. 7.—*H. ox.* viii. 9. 11.—*J. B.* ii. 522. 3.—*Fl. dan.* 431.—*Barr.* 114, *and* 747. 1 *and* 2.—(*Gmel.* i. 17. 2, *a different plant.*)

Roots creeping, thick together. *Straws* thread-ſhaped, a little compreſſed. *Floral-leaves* as long as the broad-topped ſpikes. General and partial *Broad-topped Spikes* unequal. *Capſules* egg-ſhaped, brown, ſhining. LINN.——*Straws* 2 inches to 2 feet high. Mr. WOODWARD.

Wet meadows and heaths. [Sea coaſt. Salt water ditches, near Yarmouth. Mr. WOODWARD.]

Cows, Goats, Sheep, and Horſes eat it.

toad JUN'CUS *bufonius.* Straw forked. Leaves angular. Flowers ſolitary, ſitting.—

Leers 13. 8.—*H. ox.* viii. 9. 14.—*Ger. em.* 4. 4.—*Ger.* 4. 4, *cop. in Park.* 1190. 8.—*Barr.* 263. 1.—*Roſe* 2. 5 *and* 6, *and Pet. gaz.* 51. 7, *repreſent it in its ſeedling ſtate.*

Capſules brown, ſhining.

greater ζ *Barr.* 264.—263. 2.

leaſt ε *Park.* 1270. 11.

Much ſmaller, leſs branched, reddiſh, flowering a month or 6 weeks earlier. RAY.

viviparous 6. LIGHTF. WIGGERS.

Sandy meadows and paſtures, eſpecially in places that have been overflowed in the winter. A. July. Aug.

Horſes eat it.

In its infant ſtate it has been gathered, though but by few. LINN.—See figures above.

JUN'CUS

JUN'CUS *biglu'mis*. Leaf awl-ſhaped. Huſk with 2 flowers, terminating. LINN.—*Rather flower-leaves than huſk*. ST. 2-*flowered*

Fl. dan. 120.—*Amoen. acad.* ii. 3. 3.

Root fibrous, ſimple, perpendicular. *Straw* ſomewhat more than a thumb's breadth high, cylindrical, marked with a ſingle longitudinal ſcore, at the root ſurrounded by the remains of 4 or 5 decayed leaves. *Leaf* ſingle, as long as the ſtraw, gloſſy, cylindrical, as thick again as the ſtraw, at the point tubular and dead; channelled below, ſheathing the ſtraw from the middle to the baſe. *Huſk*, *outer valve* large, egg-ſhaped, tapering, blackiſh purple, green on the back, keeled; the *lower* as ſmall again, pointed, blackiſh purple on both ſides. *Petals* ſpear-ſhaped, blackiſh purple: the 3 *outer* marked within along the middle with a greeniſh line. *Threads* white, 3 inſerted into the baſe of the petals, 3 fixed to the baſe of the ſeed-bud. *Seed-bud* blunt, corners with a kind of fringe. *Summits* purpliſh, as long as the ſhaft. Agrees in many reſpects with *J. triglumis*, but other circumſtances will not permit it to be conſidered as a variety. LINN.—*Straw* a finger high, naked. *Leaves* few, ſcarcely half the length of the ſtraw, flat. *Fence*, *outer valves* awl-ſhaped, longer than the flowers; *inner* oval and ſhorter. Perhaps only a variety of *J. triglumis*. LIGHTF.

Upon the top of Mal-ghyrdy a mountain between Glenlochy and Glenlyon, and upon Ben Teſkerny, both in Breadalbane. Diſcovered by Mr. Stuart. P. Aug.

JUN'CUS *glau'cus*. CURT. cat. n. 632. *glaucous*

JUN'CUS *triglu'mis*. Leaves flat. Huſk with 3 flowers, terminating.— 3-*flowered*

Fl. dan. 132.—*Lightf.* 9. 2.—*Fl. lapp.* 10. 5.—*H. ox.* viii. 12. 40, *referred by Linnæus to Schœnus ferrugineus*.

Leaves graſs-like, ſheathing the ſtraw at the baſe. *Straw* ſimple, leafleſs. *Flowers* ſitting. LINN.—*Huſk* and *capſules* chocolate-coloured. LIGHTF.

Bogs on mountains. on Trigvylchau, near Llanberrys, and Llyn y Cwn, near Snowdon; Eaſt ſide of Craig-Chealleach above Finlarig Breadalbane, &c. See Lightf. p. 1120. P. June.—Aug.

JUN'CUS *pilo'ſus*. Leaves flat, hairy. Broad-topped ſpike branching. LINN.—Flowers ſolitary. HUDS. ST. *hairy*

Leers 13. 10.—*H. ox.* viii. 9. *row* 1. 1. *f.* 3.—*Ger. em.* 19. 1, *cop. in Park.* 1184. 1.—*Ger.* 17. 1, *repr. in C. B. th.* 101.—(*Fl. dan.* 441, *is J. ſylvaticus.*)

Leaves

Leaves, hairs at the edges thin-ſet, and ſoon falling off. *Panicle*, branches, ſome ſimple, others forked, part of them bent back. SCHEUCH. ST.—*Leaves* often longer than the ſtraw. *Huſk*, valves moſtly blunt, and gnawed at the end, but frequently taper and ſharp pointed, cheſnut-coloured, with white membranaceous edges. *Petals* gloſſy, blackiſh cheſnut, with white membranaceous edges. *Flowers* from 1½ to 2 lines long. ST.

Woods, common. P. Apr. May.

Goats, Sheep, and Horſes eat it. Cows refuſe it.

wood JUN'CUS *ſylvat'icus*. Leaves flat, hairy. Broad-topped ſpike doubly compound. Flowers bundled, ſitting. HUDS.—Broad-topped ſpike longer than the flower-leaves. Flowers moſtly 2 together, *rather than bundled*. ST.*

Fl. dan. 441.—*H. ox.* viii. 9. *row* 1. 2, *f.* 4.—*J. B.* ii. 493. 2.—*C. B. pr.* 15. 1, *repr. in th.* 102, *and cop. in Park.* 1185. 3, *and H. ox.* viii. 9. *row* 1*ſt f.* 5, *between* 2 *and* 3.

Leaves in bundles, edges cloſely beſet with long hairs. *Panicle* larger and more ſpreading than that of *J. piloſus*; *branches* terminated generally by 2, and ſometimes by 1 or 3 flowers. *Huſk*, *valves* ſharp-pointed. *Petals* equal, cheſnut-coloured. SCHEUCH. ST.—*Leaves* bowed downwards, ſtiffiſh, ſhorter than the ſtraws. *Broad topped ſpike*, *primary branches* more than twice as long as the central diviſions; *ſecondary* & *tertiary branches* aſcending, none bent back as in *J. piloſ.* *Flowers* to nearly 1½ line long. *Petals* whitiſh at the edge. It is not eaſy to conceive how the duſt is conveyed to the pointal, for the tips do not ſhed their duſt till a conſiderable time after the pointal has made its way thro' the bloſſom, which, cloſing upon the chives and ſeed-bud, one ſhould imagine would prevent any of the duſt from eſcaping ſo as to reach the ſummits. I ſuſpect the bloſſom expands when the duſt is ripe, but I have never been able to find it in that ſituation. ST.

Woods and hedges, near Hampſtead. [Whitfell Gell, near Aſkrig, Yorkſhire, and at the bottom of the Rye-loaf near Settle. CURT.—Witchery Hole, near Cliſton upon Teme, Worceſterſh. Mr. BALLARD. ST.] P. May.

field JUN'CUS *campeſ'tris*. Leaves flat, ſomewhat hairy. Spikes ſitting, and on fruit-ſtalks.—

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* Corymbo foliis floralibus longiore, floribus ſubbifloris, to diſtinguiſh it from *J. niveus* and *nemoroſus* of Pollich. ST.

Curt.

Curt. iii. 24.—*C. B. pr.* 15. 2, *repr. in th.* 103.—*H. ox.* viii. 9. *row* 1. 4.—*Leers* 13. 5.—*J. B.* ii. 493. 3.—*Ger. em.* 17. 2, *cop. in Park.* 1185. 6.—*Ger.* 16. 2.

Straw cylindrical, ſmooth, a ſpan high. *Leaves* alternate, upright, ſheathing, ſpear-ſhaped, hairy at the edge. *Spikes* roundiſh, 1 ſitting, the reſt, about 4, on unequal fruit-ſtalks. *Empalement* pointed. *Summits* 3, longer than the empalement, twiſted. LYONS.

Paſtures, meadows, and heaths. P. April. May.

γ Panicle larger, more compact. Spikes globular. Straw and globe-headed leaves as long again. RAY.

H. ox. viii. 9. *row* 1. *f.* 1, *in the left hand corner.*—*Ger.* 16. 1, *repr. in C. B. th.* 104, *cop. in Park.* 1186, *and J. B.* ii. 468. 2.

Turſy bogs, common. P. Flowers a month later.

Sheep, Goats, and Horſes eat it.

JUN'CUS *ſpica'tus*. Leaves flat. Spike bunch-like, *ſpiked* nodding.—

Fl. dan. 270.—*Fl. lapp.* 10. 4.

Very nearly allied to, if not a variety of *J. campeſtris*. LINN.—I have ſeen the *J. campeſtris* growing with it, but they are perfectly diſtinct. Dr. SMITH.

Near the ſummits of the Highland mountains. On Ben-naſcree, Inverneſsh. Mal-ghyrdy in Breadalbane, and on a mountain a little to the north of Meggerny. [On the very ſummit of Ben Lomond. Dr. J. E. SMITH.] P. July. Aug.

476. BER'BERIS. Barberry.

EMPAL. *Cup* 6 leaves; ſtanding wide. *Leaves* egg-ſhaped; narroweſt at the baſe; concave; coloured; deciduous; alternately ſmaller.

BLOSS. *Petals* 6; roundiſh; concave; not quite upright; ſcarcely larger than the cup. *Honey-cups* 2 roundiſh coloured ſubſtances, growing to the baſe of each petal.

CHIVES. *Threads* 6; upright; compreſſed; blunt. *Tips* 2; adhering to each ſide of the thread, at the end.

POINT. *Seed-bud* cylindrical; as long as the chives. *Shaft* none. *Summit* cylindrical and flat; broader than the ſeed-bud; encompaſſed by a ſharp border.

S. VESS. *Berry* cylindrical; blunt; dimpled; with 1 cell.

SEEDS 2; oblong; cylindrical; blunt.

Ess.

Ess. Char. *Empal.* 6 *leaves.* *Petals* 6; *with* 2 *glands at the claws.* *Shaft* 0. *Berry with* 2 *ſeeds.*

common BER'BERIS *vulga'ris.* Fruit-ſtalks in bunches. *Syſt. veg.*—Thorns 3-forked. *Fl. ſuec. and* Murr.

Mill. 63.—*Blackw.* 165.—*Fuchſ.* 543.—*Trag.* 993.—*Cluſ.* i. 120. 2, *repr. in Dod.* 750, *Lob. obſ.* 599. 2, *Ger. em.* 1325, *and cop. in Park.* 1559.—*J. B.* i. 6. 54.—*Ger.* 1144.—*Lon.* i. 46. 1.—*(Blackw. ib.* 2, *is ſurely a ſpecies of Prunus.)*

The firſt leaves inverſely egg-ſhaped, between ſerrated and fringed, not jointed. *Leaf-ſcales* terminated on each ſide by a hair-like tooth. *Stem-leaves* alternate, the lowermoſt ſomewhat wing cleft, with thorny teeth; the reſt are changed into 3-forked thorns. *The ſecondary leaves* in pairs, oblong, ſerrated. Between the lowermoſt leaves and the thorns are concealed leſſer leaves. Thus, when the leaves of the preſent year are changed into thorns, others will ſucceed to take place of them in the next. Is there any inſtance analogous to this? Linn. *ſp. pl.*—*Leaf-ſcales* ſolitary, 3-forked, changing into thorns. *Fl. ſuec.* St.—In ſearching for the *honey-cup* at the baſe of the *petals* when the flower is fully expanded, if you happen to touch the *threads*, though ever ſo ſlightly, the *tips* burſt and throw out the *duſt* with a conſiderable expanſive force.—The *threads* of this plant, though ſaid by Linnæus to be upright before the *tips* are ripe, are only expanding; and only upright after they have ſhed their *duſt*, or are about to do it. When the *tips* are thoroughly ripe, if the bottom of the *thread* be irritated with a pin, or a ſtraw, the chive riſes with a ſudden ſpring, and ſtrikes the *tip* againſt the ſummit of the pointal; affording a remarkable inſtance of one of the means uſed to perform the important operation of impregnation. Mr. Whately, from Dr. Sims.—*Bloſs.* yellow, ſometimes ſtreaked with orange. *Berries* red. With.

Barberry. Pipperidge-buſh.

Woods and hedges. On Chalk Hills. About Walden, Eſſex. S. May. June.

The leaves are gratefully acid. The flowers are offenſive to the ſmell when near, but at a proper diſtance their odour is extremely fine. The berries are ſo very acid that birds will not eat them, but boiled with ſugar they form a moſt agreeable rob or jelly. They are uſed likewiſe as a dry ſweetmeat and in ſugar-plumbs. An infuſion of the bark in white wine is purgative. The roots boiled in lye dye wool yellow. In Poland they dye leather of a moſt beautiful yellow with the bark of the root. The inner bark of the ſtems dyes linen of a fine yellow, with the aſſiſtance of alum. This ſhrub ſhould never be permitted to grow in corn lands, for the

ears

ears of wheat that grow near it never fill, and its influence in this reſpect has been known to extend as far as 3 or 4 hundred yards acroſs a field. WITH.

Cows, Sheep, and Goats eat it. Horſes and Swine refuſe it. LINN.—And the former refuſed the young leaves picked off the branches. ST.

481. FRANKE'NIA. Frankwort.

EMPAL. *Cup* 1 leaf; nearly cylindrical; 10-cornered; permanent. *Rim* with 5 ſharp teeth; ſtanding out.
BLOSS. *Petals* 5; the *claws* as long as the cup; *border* flat; *limbs* nearly cylindrical and expanding. *Honey-cup* a channelled, tapering claw, fixed to each claw of the petals.
CHIVES. *Threads* 6; as long as the cup. *Tips* roundiſh; double.
POINT. *Seed-bud* oblong. *Shaft* ſimple; as long as the chives. *Summits* 3; oblong; upright; blunt.
S. VESS. *Capſule* oval; of 1 cell, and 3 valves.
SEEDS many; egg-ſhaped; ſmall.
ESS. CHAR. *Empal. funnel-ſhaped; with* 5 *clefts. Petals* 5. *Summit* 6 *diviſions. Capſule* 1 *cell;* 3 *valves.*
OBS. To be referred to the natural order of Perſonatæ.

FRANKE'NIA *lævis*. Leaves ſtrap-ſhaped, crowded, *ſmooth* fringed at the baſe.—

Michel. 22. 1.—*Lob. adv.* 180. 3, *repr. in Ger. em.* 566. 3.—*Barr.* 714.—*J. B.* iii. 703. 2.—*Pet.* 10. 11.—(*Park.* 1484, *has tiled leaves.*)

Leaves rolled back at the edge, ſomewhat fringed on each ſide at the baſe. *Flowers* at the diviſions of the ſtem, and in the middle of a bundle of leaves, ſolitary, ſitting. *Shaft* deeply cloven into 3. RELHAN.—*Stem* and *leaves* thinly ſprinkled with white globular particles. *Leaves* fleſhy, egg-ſhaped, but the edges being rolled in they appear almoſt cylindrical with a groove underneath, flatted at the baſe. *Empal.* with 6 or 7 ribs and as many teeth. *Petals* wedge-ſhaped, a little ſcolloped at the end. *Honey-cup* a fleſhy ſcale, fixed to the baſe of each petal. *Threads* taper, flat on one ſide, convex on the other. *Tips* yellow. *Shaft* cloven half way down into 3 ſegments. WITH.—*Stems* numerous, branched, trailing. *Bloſſoms* purple.

Salt

Salt marſhes in a muddy ſoil. Lovingland, near Yarmouth. Iſles of Shepey and Thanet; Eſſex, Suſſex, and Kent, common. [Near Yarmouth. Mr. CROWE.]

duſty FRANKE'NIA *pulverulen'ta*. Leaves inverſely egg-ſhaped, dented at the end, duſted underneath.—

Cluſ. ii. 186. 2, *repr. in Dod.* 376, *and Ger. em.* 566. 2.—*Zanon.* 79.—*Lob. adv.* 196. 2.

Stems lying flat, ſlender, branching; knots about a finger's breadth from each other. *Leaves* 4 at a joint, hoary underneath. *Flowers* in the boſom of the leaves. MONT. in *Zanon.* ST.—Sitting. *Leaves* with very ſhort hairs underneath, edges not rolled in, on ſhort leaf-ſtalks. *Empalement* tough, rigid, with 5 angles; *teeth* upright. ST.

Sea coaſt of Suſſ. between Bognor & Brighthelmſtone. A. July.

482. PEP'LIS. Purſlane.

EMPAL. *Cup* 1 leaf; bell-ſhaped; very large; permanent. *Rim* with 12 teeth; every other bent back.

BLOSS. *Petals* 6; egg-ſhaped; very minute; growing from the mouth of the cup.

CHIVES. *Threads* 6; awl-ſhaped; ſhort. *Tips* roundiſh.

POINT. *Seed-bud* egg-ſhaped. *Shaft* very ſhort. *Summit* cylindrical and flat.

S. VESS. *Capſule* heart-ſhaped. *Cells* 2; with an oppoſite partition.

SEEDS many; 3-cornered; ſmall.

ESS. CHAR. *Empalement bell-ſhaped; mouth with* 12 *clefts. Petals* 6, *inſerted into the cup. Capſule, cells* 2.

OBS. In the greater number of the flowers, of one and the ſame plant, the bloſſom is altogether wanting.

water PEP'LIS *Por'tula*. Flowers without petals. LINN.—*More commonly without.* LINN.—*Rather*, Flowers with 6 chives. ST.*

Curt. iv. 48.—*Vaill.* 15. 5.—*Fl. dan.* 64.—*Mich.* 18. 1.—*Ger. em.* 614. 11, *cop. in Park.* 1260. 4.—*J. B.* iii. 372. 3, *leaves too pointed.*

Leaves the thinneſt of all plants. LINN.—*Stem* creeping, 4-cornered, reddiſh. *Branches* upright, 3 inches long. *Leaves* oppoſite, ſpatula-

* Floribus hexandris. ST.

ſpatula-ſhaped, ſmooth, very entire. *Flowers* from the boſom of the leaves, ſitting. LYONS.—*Petals* very ſoon falling off, ſometimes, though rarely, 6. RELH.—Inverſely egg-ſhaped. They are thin, but not more ſo than ſeveral of the Euphorbias and many aquatics. *Petals* 6, inverſely egg-ſhaped, with a ſharp point, expanding, inſerted at the baſe of the long teeth of the empalement, pale red, readily falling off. ST.—*Stem* rooting at the joints. *Leaves* tapering below into flat leaf-ſtalks. *Bloſs.* very frequently wanting. *Threads* reddiſh purple. *Seed-bud* compreſſed. WITH.—*Stems* numerous, creeping. *Leaves* oppoſite; two at each joint. *Bloſs.* ſitting at the baſe of the leaves, purpliſh.

Marſhy and watery places. P. Sept.

Order II.

TRIGYNIA; III. POINTALS.

485. RU'MEX. Dock.

EMPAL. *Cup* 3 leaves; blunt; reflected; permanent.
BLOSS. *Petals* 3; egg-ſhaped; not unlike the cup, but larger; approaching; permanent.
CHIVES. *Threads* 6; hair-like; very ſhort. *Tips* upright; double.
POINT. *Seed-bud* turban-ſhaped; 3-cornered. *Shafts* 3; hair-like; reflected; ſtanding out in the ſpaces between the approaching petals. *Summits* large; jagged.
S. VESS. none. The bloſſom approaching, and becoming 3-cornered, contains the ſeed.
SEEDS ſingle; 3-ſided.

ESS. CHAR. *Empalement* 3 *leaves. Petals* 3, *approaching. Seed* 1, *3-ſquare.*

OBS. In ſome of the ſpecies a callous grain or bead grows on the outſide of the petals, (or the ripe petals, when they incloſe the ſeed. ST.)

* *Chives and pointals in the ſame flower. Valves marked with a grain.*

RU'MEX *ſanguin'eus.* Valves very entire, only 1 with a grain. Leaves heart-ſpear-ſhaped.— *ſmall-grained*

1. bloody.

Munt. brit. 113, *cop. in phyt.* 691. 196.—*Pet.* 2. 5.—*J. B.* ii. 989. 1.—*Blackw.* 492.—*Dod.* 650. 2, *repr. in Lob. obſ.* 154, *ic.* i. 290. 1, *Ger. em.* 390, *and cop. in Park.* 1226. 10, *and H. ox.* v. 27. 6.

Leaves with red veins containing a blood-coloured juice. *Outer valve* of the flower with a large red globular grain, and ſometimes the other with a ſmall grain. It migrated from Virginia to Hampſted in England. LINN.—*Bloſſoms* reddiſh.

Bloodwort.—Woods near Hampſted, but not frequent, and near Maidſtone, Kent. B. July.

bloodleſs 2. Leaves without red veins. RAY. ST.

Curt. iii. 31.*—*Blackw.* 491.—*Pet.* 2. 6.

Leaves finely notched, curled at the edge. *Stem-leaves* uſually waved. *Flowers* pendant, in half whorls. *Fruit-ſtalks* with a joint at the baſe. *Valves* thrice as ſmall as any of the other ſpecies, oblong, bluntiſh, very entire; one, and that the outer, always bearing a little grain, which is at firſt oblong, but at length becomes round and prominent. In ſhady ſituations pale, in expoſed ſituations very red. CURT. ST.

Lapathum viride. R. ſyn. 141.

Woods, hedges, ſides of rivers and roads, and ſometimes in fields and meadows. P. June. July.

curled RU'MEX *criſ'pus.* Valves entire, with grains. Leaves ſpear-ſhaped, waved, pointed. LINN.—*Valves imperfectly toothed towards the baſe, in ſome plants generally only* 1, *and rarely* 2 *with grains.* ST.

Curt. ii. 18.—*Munt. brit.* 104, *cop. in phyt.* 690. 190.—*Ger.* 312. 4, *cop. in Pet.* 2. 2.

Grains on the valves very large, nearly round. Mr. WOODW.—*Root* yellow. CURT.—*Valves* round heart-ſhaped, with a bluntiſh imperfect angle on each ſide, giving it the appearance of a pentagon, veined; *grains* roundiſh egg-ſhaped, prominent; the larger more than half as long as the valve. ST.

Meadows, paſtures, road ſides, and cultivated ground. In almoſt all ſoils. P. June. July.

In Norfolk it is the peſt of clover fields. Mr. WOODWARD.—The freſh roots bruiſed and made into an ointment or decoction cure the itch. The ſeeds have been given with advantage in the dyſentery.—Cows and Goats refuſe it.

* Named *R. acutus*, but it cannot be the *R. acutus Linn.* which is characteriſed with toothed valves. Mr. WOODWARD. ST.

RU'MEX

RU'MEX *marit'imus*. Valves toothed, with grains. *golden* Leaves ſtrap-ſhaped.—

β. HUDS.—Whorls of flowers fewer. Seeds larger. PLUK. *Curt.* iii. 28.—*Lob. obſ.* 151. 2, *repr. in ic.* i. 286. 1, *and Ger, em.* 389. 2, *cop. in Park.* 1225. 8, *and J. B.* ii. 987. 2.—*Pet.* 2. 7.

Root red. LINN.—Differs from *R. acutus* in the whorls of flowers being more numerous and cloſely ſet, and the leaves below the whorls being ſhorter. RAY.—*Seeds* larger, and *whorls* of flowers fewer than in variety 2. PLUK.—*Root* without of a reddiſh brown, within of a beautiful carmine red. *Leaves* ſometimes found with red veins, like thoſe of *R. ſanguineus*. *Valves* green, with 2 or 3 fine long teeth on each ſide; *grains* oblong, rather large. CURT.—*Stems* very leafy. Mr. WOODWARD.

Rumex aureus. RELH. an unjuſtifiable change of what ought to be inviolate.

Hydrolapathum minus. Park. 1225.—(*Lapathum acutum minimum. R. ſyn.* 141. *n.* 5, *ſeems rather to be a variety of R. acutus.*—*Haller* 1590, *has* "*valves entire at the edge.*") ST.

Road ſides, and amongſt rubbiſh. Tothill Fields, London. PLUK.—St. George's Fields, and many places about London. RAY. CURT. P. July.—Sept.

α. HUDS.—Whorls crowded, and when ripe covering the branches ſo as to give them the appearance of ſpikes. *Flowers* yellow. ST.

Pet. 2. 8.—*J. B.* ii. 988. 1.

Bur Gold Dock.—*Lapathum aureum. R. ſyn. p.* 142. *n.* 10.

Stem branched, ſcored, cylindrical. *Leaves* pointed, flat, ſmooth on both ſides, keeled. *Flowers* keeled, in whorls, numerous. *Valves* triangular, pointed, deeply toothed, all with grains. LYONS.—I am clearly of opinion that this is a diſtinct ſpecies, and which may be diſtinguiſhed by Petiver's name of *aureus*, which Mr. Relhan has improperly applied to the true *R. maritimus*. ST.

In marſhes; about Crowland, Lincolnſhire; near the Trent at Swarſton, Derbyſhire; and between Hithe and the ſea. RAY.—Sea coaſt, in low wet places. Solway Frith. LIGHTF.—[Severn Stoke, Worceſterſhire. Mr. BALLARD. ST.] P. July. Aug.

RU'MEX *acu'tus*. Valves toothed, with little grains. *ſharp-pointed* Leaves heart-oblong, taper-pointed.—

Fuchſ. 461, *cop. in J. B.* ii. 984. 1.—*Lonic.* i. 87. 1.—*Pet.* 2. 3.—*H. ox.* v. 27. 3, *leaves.*—(*In Matth.* 446, *imitated in Dod.* 648. 1, *which repr. in Lob. obſ.* 150. 2, *ic.* i. 284. 1, *Ger. em.* 388. 1, *and cop. in Park.* 1225. 1, *and Munt. brit.* 88, *which*

cop. in phyt. 189, *the flowers are on long ſolitary fruit-ſtalks.*—*Blackw.* 491, *ſeems to be R. ſanguineus, variety* 2.—*Curt.* iii. 31, *is R. ſanguineus, variety* 2, *which ſee.)*

Teeth of the *valves*, ſeveral on each ſide, unequal, equal in length to the diameter of the valve. LINN.—*Leaves* flat throughout, not curled, very entire. *Flowers* greeniſh, in whorls on the ſtem and branches. A *flower-leaf* to each whorl, extending a good way beyond the whorl. POLLICH.—*Flowers* in ſeparate whorls, with a ſtrap-ſhaped leaf to each whorl. *Seeds* more than as ſmall again as the *R. obtuſifolius and criſpus.* RAY.—*Stem* upright, branching, angular, ſcored, ſolid. *Branches* upright. *Leaves* on leaf-ſtalks, pointed, ſmooth, veined underneath, keeled. *Leaf-ſtalks* ſcored, half embracing the ſtem. *Leaf-ſcales* membranaceous, within the leaf-ſtalks, and without the fruit-ſtalks. *Flowers* in whorls. *Valves* ſerrated below, oblong, bluntiſh, one of them with a grain. LYONS.—I have never ſeen this plant. What is commonly taken for it has "valves very entire, one of them with a "grain," as deſcribed by Mr. Curtis, but appears to be a variety of *R. ſanguineus.* ST.

Meadows, paſtures, and road ſides. HUDS.—In uncultivated and watery places. RAY.

Cows and Horſes refuſe it.—It is infeſted by the *Aphis Rumicis.* LINN.—The root is uſed by the dyers. It gives a great variety of ſhades, from ſtraw colour to a pretty fine olive, and a fine deep green to cloths which have been previouſly blued. ST.

broad-leaved RU'MEX *obtuſifo'lius.* Valves toothed, with grains. Leaves heart-oblong, bluntiſh, finely notched.—

Curt. iii. 29.—*Lob. ic.* i. 285. 1, *repr. in Ger. em.* 388. 3, *cop. in Park.* 1225. 4, *and Pet.* 2. 9.—*Munt. brit.* 68, *cop. in phyt.* 187, *teeth of the valves not expreſſed.*—*Ger.* 312. 3, *cop. in J. B.* ii. 985. 1.

Stem-leaves ſpear-ſhaped, pointed. Mr. WOODWARD.—*Stems* furrowed, and ſet with ſhort white tranſparent briſtles, about 2 ft. high. *Leaves* curled at the edge, ribs downy; the *upper* heart-ſtrap-ſpear-ſhaped. *Leaf-ſtalks* ſhorter than the breadth of the leaves. *Fruit-ſtalk* ſprinkled near the top with white ſhining globules. *Pedicles* ſurrounded near the baſe by an indiſtinct cartilaginous ring. *Empal. leaves* boat-ſhaped, nearly as long as the petals. *Petals* ſpear-ſhaped, flat, green, not very evidently toothed. *Tips* white, or yellow. *Summits* pencil-ſhaped. *Valves*, that with the largeſt grain outermoſt when the fruit-ſtalk bends downwards, and with the longeſt teeth; none of the teeth equal in length to the diameter of the valve. WITH.

Amongſt

Amongſt rubbiſh, farm yards, courts, and ſides of ditches. P. July. Aug.

Fallow Deer eat it with avidity, biting it cloſe to the root, ſo that it is very rarely to ſee a Dock growing in a park. Mr. DICKENSON. Mr. HACKETT.

Horſes ſometimes eat it. ST.

RU'MEX *pul'cher*. Valves toothed; generally one with a grain. Root-leaves fiddle-ſhaped.— *fiddle*

H. ox. v. 27. 13.—*Pet.* 2. 10.—*J. B.* ii. 988. 3, *ſtem bad.*—*Till. pis.* 37. 2, *ſeed-veſſel and leaf, but without its characteriſtic hollow.*

Stem-leaves egg-oblong, entire, not hollowed out at the ſides. *Flowering branches* bowed back. *Valves* blunt at the end, the outer with a grain, and the reſt with an imperfect grain. LINN.—*Stem* much branched. *Branches* alternate, with a ſtrap-ſpear-ſhaped leaf under each. Mr. WOODWARD.

Rubbiſh, dry meadows, and road ſides. [In Norfolk, very common. Mr. WOODWARD.] P. July. Aug.

RU'MEX *paludo'ſus*. Valves entire, with grains. Leaves egg-ſpear-ſhaped, ſomewhat pointed. HUDS. ST. —Grains roundiſh egg-ſhaped.* ST. *marſh*

(J. B. ii. 987. 2.? *Huds.—Rather R. maritimus, variety* 1.)

Root branching. *Stem* upright, 4 feet high, ſcored, branching; *branches* alternate, upright. *Root-leaves* egg-ſhaped, bluntiſh, ſomewhat finely notched; *ſtem-leaves* alternate, on leaf-ſtalks, ſomewhat finely notched, rather pointed, flat, naked, on ſhort leaf-ſtalks. *Leaf-ſcales* ſheathing, membranaceous. *Flowers* in whorls, on fruit-ſtalks. *Whorls* generally diſtinct. *Valves*, the outer with a large red grain; the reſt with a ſmall grain. HUDS. —Reſembles the *R. criſpus*. Doubtful whether a diſtinct ſpecies. RAY. Mr. WOODWARD. ST.—Whole *plant* very ſmooth. *Stem* furrowed. *Leaves* a little ſcolloped and waved at the edge. *Fruit-ſtalks*, ſome as long, others twice as long as the fruit, with a very evident ring ſomewhat below the middle. *Valves* ſlightly toothed, particularly towards the baſe, only 1 of them with a grain. WITH. ST.—Sometimes, though very rarely, two of them with grains; *grains* roundiſh-egg-ſhaped, nearly 3 times ſhorter than the valves. In its foliage it reſembles the *R. Hydrolapathum*, and in its fruit moſt exactly the *R. criſpus*, of which it is poſſibly only a var. ST.

R. florib. herm. ad alas, &c. Boehm. lipſ. n. 576.—*R. criſpus. β. Pollich.* ST.

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* Granis ſubrotundo-ovatis. ST.

Marſhes and banks of rivers. [Near Tamworth. WITH.]
P. Aug.

water RU'MEX *Hydrolap'athum*. Valves entire, with grains. Leaves ſpear-ſhaped, pointed.* HUDS. WITH. ST.—Grains oblong-ſpear-ſhaped. ST.†

Munt. brit. 1, *cop. in Munt. phyt.* 697. 202.—*Pet.* 2. 1.—*Ger.* 311. 1, *ill cop. in J. B.* ii. 1.—*(Dod.* 648. 2, *repr. in Lob. obſ.* 151. 1, *ic.* i. 285. 2, *Ger. em.* 389. 1, *and cop. in Park.* 1225. 7, *is R. Patientia, as is evident from its curled leaves.—Blackw.* 490.—*And Matth.* 450, *are R. aquaticus.)*

Valves ſometimes toothed. HALL. ST.—*Stem* 2 to 4 feet high, upright, green, angular, channelled. *Leaves* on leaf-ſtalks, 1½ to 2 feet long, 3 or 4 inches broad, the edge, eſpecially in thoſe of the ſtem, ſomewhat curled. *Flowers* pale, in panicles. *Fruit-ſtalks* hair-like. *Valves* very entire. RELHAN.—*Root* white within, black without. *Stem* 5 or 6 feet high, furrowed. *Leaves* a little toothed and waved at the edge; the *lower* ones to 18 inches long. *Leaf-ſtalks* ſemi-cylindrical, hollowed on the ſurface, ribbed underneath, thoſe of the lower-leaves ſometimes 15 inches long. *Fruit-ſtalks* encompaſſed a little below the middle with an indiſtinct ring, in half whorls. *Whorls* from alternate ſides of the ſtem and branches, ſurrounded by a ſkinny ſheath. *Empal.* of 1 leaf, with 3 diviſions; *ſegments* ſpear-ſhaped, ſomewhat concave. *Tips* yellowiſh white. *Seed-bud*, the ſides hollow. *Summits* flat, fringed. *Valves* very ſlightly toothed, eſpecially towards the baſe; *teeth* becoming more and more evident as the ſeed ripens; *grains* greeniſh white or purpliſh. WITH. ST.—*Stem* ſtiff, quite upright, branching above. *Branches* upright, or open. *Stem-leaves* nearly ſitting. *Fruit-ſtalks* longer than the flowers, readily breaking off at the knot. *Petals* green, oblong-egg-ſhaped, with the edge ſometimes imperfectly toothed. *Chives*, 2 inſerted into the baſe of each petal. *Summits* feathered. *Valves* become 3 or 4 times as large as the petals, triangular, veined, all with grains; *grains* ſpear-ſhaped, fleſhy, more than half the length of the valve. *Seeds* not quite half the length of the valve; the ſides ſlightly hollow. *Leaves* retain their ſhape when tranſplanted into dry ground. ST.

R. aquaticus. MARTYN. LIGHTF. *and Bot. Arr. ed.* I.—Miſled by the ſynonyms referred by Linnæus to that ſpecies, but that the *R. aquaticus*,

* It could be wiſhed that Mr. Hudſon would afford us ſome marks by which to diſtinguiſh this from the *R. britannica*. ST

† Granis oblongo-lanceolatis. ST.

R. aquaticus, LINN. is a diſtinct ſpecies is evident from the Linnæan character confirmed by Pollich's deſcription and Blackw. figure. ST.

Marſhes, wet ditches, pools, and ſides of rivers. growing generally in the water where it is ſhallow, and ſeldom but in the water. RAY. ST.—[About Cliſton, Worceſterſh. Mr. BALLARD. ST.—And Tamworth. WITH. ST.] P. July. Aug.

It is a medicine of conſiderable efficacy, both externally applied as a waſh for putrid ſpongy gums, and internally in ſome ſpecies of ſcurvy. In rheumatic pains, and chronical diſeaſes, owing to obſtructed viſcera, it is ſaid to be uſeful. The powdered root is one of the beſt things for cleaning the teeth. The root has ſometimes a reddiſh tinge, but ſoon changing to a yellowiſh brown when expoſed to the air.

The *Curculio Lapathi* is found upon the leaves.

** *Chives and pointals in the ſame flower. Valves naked, or without grains.*

RU'MEX *digy'nus.* Shafts 2. *mountain*

Fl. dan. 14.—*Pluk.* 252. 2.—*H. ox.* v. 36. *row* 3. *f.* 3.—*Pet.* 3. 4.

Flower cloven into 4, conſiſting of an *empalement* of 2 leaves, and a *bloſſom* of 2 petals. *Seed-bud* compreſſed. *Seed* 2-edged, compreſſed. LINN.—*Stem* naked. *Leaves* kidney-ſhaped, ſlightly and irregularly notched, on long leaf-ſtalks. *Valves* roundiſh, tinged with red, membranaceous. Mr. WOODWARD.

Acetoſa rotundifolia, &c. R. ſyn. 143. (WITH.)

Mountains of Wales, Yorkſhire, Weſtmoreland, Cumberland. Rocks by the ſides of rivulets from the Highland mountains, and Iſles of Rum and Skye. P. June. July.*

*** *Chives and pointals on diſtinct plants.*

RU'MEX *Aceto'ſa.* Leaves oblong, arrow-ſhaped.— *Sorrel*

Sheldr. 57.—*Blackw.* 230.—*Park*, 742, *left hand figure; cop. in Pet.* 3. 1.—*Fuchſ.* 464, *cop. in Trag.* 315, *and J. B.* ii. 990. 1.—*Matth.* 447, *cop. in Dod.* 648. 4, *repr. in Lob. obſ.* 155. 1, *ic.* i. 290. 2, *Ger. em.* 396. 1, *and cop. in Park.* 742. *n.* 1, *and H. ox.* v. 28. *row* 1. 1.—*Ger.* 319. 1.—*Munt. brit.* 174, *cop. in phyt.* 278. 73.—*Lonic.* 88. 2.

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* RUMEX *ſcutatus.* Very common in the gardens of Yorkſhire. I have ſometimes ſeen it in ſituations which have tempted me to think it an indigenous plant. CURT.

The *barren plant* ſmaller. *Fruit-ſtalks* purple. *Empal.* expanding. The *fertile plant* taller. *Empalement*, the larger leaves bent back, the ſmaller upright, covering the ſeed-bud. One 3d of the *flowers* unproductive, even when growing near to the *plant with chives*. RELH.—*Leaf-ſtalks* purpliſh. *Bloſſoms* reddiſh.

Common Sorrell

Meadows and paſtures. P. June.

The leaves are eaten in ſauces and in ſallads. The Laplanders uſe them to turn their milk ſour. In France they are cultivated for the uſe of the table, being introduced in ſoups, ragouts, and fricaſies. In ſome parts of Ireland they eat them plentifully with milk, alternately biting and ſupping. The Iriſh alſo eat them with fiſh, and other alcaleſcent food. The dried root gives out a beautiful red colour when boiled.

Horſes, Cows, Goats, Sheep, and Swine eat it. The *Aphis Acetoſæ* feeds upon it.

greater ♃. Rocks on the ſea ſhore near Harelech, Merionethſh. RAY.

ſheeps RU'MEX *Acetoſel'la*. Leaves ſpear-halberd-ſhaped.—*Blackw.* 307.—*Trag.* 316.—*J. B.* ii. 992. 1.—*Dod.* 650. 1.—*Lob. obſ.* 156. 1, *repr. in ic.* i. 291. 2, *Ger. em.* 397. 3, *and cop. in Park.* 744. 13, *H. ox.* v. 28. 12, *and Pet.* 3. 2.—*Munt. brit.* 189. 2, *cop. in phyt.* 76. 2, *and brit.* 182, *cop. in phyt.* 77.—*Matth.* 448, *cop. in Ger.* 320. 3.—*Park.* 744. 15, *cop. in H. ox. ib.* 11, *and Pet.* 3. 4, *is the plant with barren flowers.*—*Zanon.* 5.

Barren Plant. *Empal.* leaves expanding, the hinder part red. *Tips* red. *Duſt* yellow. *Fertile plant* of the ſame ſize with the barren. *Empalement* green. *Summits* yellowiſh, 1 generally imperfect. RELHAN.—*Roots* creeping. *Bloſſoms* yellowiſh.

Sheep's Sorrell.

Sandy meadows and paſtures. P. May. June.

Horſes, Cows, Goats, Sheep, and Swine eat it.

ſmall 2. Stem-leaves ſtrap-ſhaped. Root-leaves ſtrap-halberd-ſhaped. ST.

Ger. 321. 6.—*Ger. em.* 398. 6.

ſmalleſt 3. Stem-leaves ſtrap-ſhaped. Root-leaves oval or oblong. ST.

Ger. 321. 7.

OBS. The *Phalæna fuliginoſa*, *Atriplicis* and *Rumicis*, and the *Meloe Proſcarabæus*, are found upon the different ſpecies of this genus.

TOFIEL'DIA.

TOFIEL'DIA. *Huds.*

EMPAL. none.
BLOSS. *Petals* 6; equal; oblong; blunt; concave; permanent.
CHIVES. *Threads* 6; awl-ſhaped; ſmooth; as long as the petals. *Tips* ſmall; roundiſh; fixed ſideways.
POINT. *Seed-bud* 3-cornered. *Shafts* 3; awl-ſhaped; expanding. *Summits* blunt.
S. VESS. *Capſule* roundiſh; nearly 3-cornered; 3 cells, 6 valves.
SEEDS numerous; oblong; nearly 3-cornered; ſmall.
HUDS. ST.

ESS. CHAR. *Empalement* 0. *Bloſs.* 6 *petals.* *Capſules* 3, *containing many ſeeds.* ST.

OBS. This genus forms the connecting link between *Scheuchzeria* and *Narthecium*, and theſe 3 compoſe the ſeries connecting *Juncus* to *Anthericum*, and the reſt of the *Liliacea*. ST.

TOFIEL'DIA *paluſ'tris.*— *marſh*

Fl. dan. 36, *in fruit.*—*Cluſ.* i. 198, *and cop. in Ger. em.* 96.—*Lightf.* 8. 2. *at p.* 124.—*Fl. lapp.* 10. 3.—*Gmel.* i. 18. 2.

A ſmall trifid *floral-leaf* at the baſe of each flower, reſembling a cup. LIGHTF. ST.—*Flowers* in a bunch. *Fruit-ſtalks* very ſhort. *Flower-ſcales* 2 to each fruit-ſtalk, the lower ſpear-awl-ſhaped, half ſheathing the baſe of the fruit-ſtalk, the upper juſt below the flower ſurrounding the fruit-ſtalk. ST.

Aſphodelus Lancaſtriæ verus. Ger. em. 96. *n.* ‡ 2.
Scotch Aſphodel.

Bogs on mountains in Scotland. Near Berwick. On Glenmore, Roſsſhire, and Ben Grihum, Sutherland. About Loch Rannoch, Perthſhire. Iſle of Rum, and Bidan-nam-bian in Glenco.
P. July.—Sept.

Sheep and Goats refuſe it.

488. TRIGLO'CHIN. Arrowgrass.

EMPAL. *Cup* 3 leaves; nearly round; blunt; concave; deciduous.

BLOSS. *Petals* 3; egg-shaped; concave; blunt; resembling the leaves of the cup.

CHIVES. *Threads* 6; very short. *Tips* 6; shorter than the petals.

POINT. *Seed-bud* large. *Shafts* none. *Summits* 3, or 6; reflected; downy.

S. VESS. *Capsule* oblong-egg-shaped; blunt; with as many cells as summits. Valves sharp; opening at the base.

SEEDS solitary; oblong.

ESS. CHAR. *Empal.* 3 *leaves. Petals* 3, *similar to the empal. Shaft* 0. *Capsule opening at the base*

marsh TRIGLO'CHIN *palus'tre.* Capsule of 3 cells, nearly strap-shaped.—

Fl. dan. 490.—*Leers* 12. 5.—*Trag.* 679.—*H. ox.* viii. 2. 18.—*J. B.* ii. 508. 2.—*Ger.* 18. 1, *repr. in C. B. th.* 81.—*Ger. em.* 20. 1, *cop. in Park.* 1279. 10.

Root fibrous. LINN.—*Chives*, 3 contained within the leaves of the empal. and 3 within the petals. *Tips* double. Mr. HOLLEFEAR.—The pointed valves of the *capsule* opening at the bottom, give it the appearance of the head of an arrow. WITH.—*Flowers* in a long terminating spike, greenish.

Arrow-headed Grass.

Wet meadows and pastures. [Tamworth. WITH.] P. July. Aug.

Cows are extremely fond of it. Horses, Sheep, Goats, and Swine eat it.

sea TRIGLO'CHIN *marit'imum.* Capsule of 6 cells, egg-shaped.—

Fl. dan. 306.—*Ger.* 12. 2, *repr. in C. B. th.* 82, *and cop. in Park.* 1278. 9, *H. ox.* viii. 2. 19, *and J. B.* ii. 508. 1.

Meadows near the sea. [Near Yarmouth. Mr. WOODWARD.—Salt marsh near Ingestre, Staffordsh. ST.] P. May.—Aug.

It is salt to the taste; but Horses, Cows, Sheep, Goats, and Swine are very fond of it. LINN.—May it not, therefore, prove a useful grass on the sea shore, and in salt marshes? ST.

492. COL'-

492. COL'CHICUM. Tuberoot.

EMPAL. none; except, ſometimes, a ſort of ſcattered ſheaths.

BLOSS. with 6 diviſions. *Tube* angular; extending down to the root. *Segments* of the border ſpear-egg-ſhaped; concave; upright.

CHIVES. *Threads* 6; awl-ſhaped; ſhorter than the bloſs. *Tips* oblong; with 4 valves; fixed ſideways to the threads.

POINT. *Seed-bud* buried within the root. *Shafts* 6; thread-ſhaped; as long as the chives. *Summits* reflected; channelled.

S. VESS. *Capſule* of 3 lobes; connected on the inſide by a ſeam; blunt; with 3 cells, opening inwards at the ſeams.

SEEDS many; nearly globular; wrinkled.

ESS. CHAR. *A ſheath. Bloſſom with 6 diviſions; the tube riſing from the root. Capſules 3; connected; inflated.*

COL'CHICUM *autumna'le.* Leaves flat, ſpear-ſhaped, upright.— *Saffron*

Stoerck.—Fuchſ. 356, 357, *the expanded bloſſom inferior to the other parts; cop. in Trag.* 759, *and J. B.* ii. 649.—*Blackw.* 566.—*Dod.* 460. 2, *repr. in Ger. em.* 157. 1.—*Ger. em.* 157. 2, *cop. in Pet.* 67. 2.—*Tourn.* 181, *and* 182.—*H. ox.* iv. 3. 1.—*Ger.* 127. 1 *and* 2.

Flowers in September, produces its fruit in the following ſpring, and ripens it in ſummer. LINN.—*Bloſs.* pale purple, ſoon wither. In the ſpring ſeveral ſpear-ſhaped *leaves* ariſe, with generally 1 or 2 as long as the reſt, but only ¼ as wide, being a kind of *flower-leaves* to the ſeed-veſſel. *Capſule* large, ſomewhat egg-ſhaped, with 3 very blunt angles. Mr. WOODWARD.—*Bloſs.* tube 3-cornered; *ſegments* rather unequal. *Tips*, with a fleſhy glandular ſubſtance between the lobes. *Duſt* orange-coloured. *Shafts* reaching down to the root. *Seed-bud* at the root ſurrounded by the rudiments of the future leaves. The *ſeeds* lie buried all winter within the root, in ſpring they grow up on a fruit-ſtalk, and are ripe about the time of hay harveſt. May not the very great length of the ſhafts account in ſome meaſure for the delay in the ripening of the ſeeds? As this plant bloſſoms late in the year, and probably would not have time to ripen its ſeeds before the acceſs of winter, which would deſtroy them, providence has contrived its ſtructure ſuch, that this important

portant office may be performed at a depth in the earth, out of reach of the uſual effects of froſt: and as ſeeds buried at ſuch a depth, are known not to vegetate, a no leſs admirable proviſion is made to raiſe them above the ſurface when they are perfected, and to ſow them at a proper ſeaſon. WITH.

Meadow Saffron.

Meadows, low as well as mountainous, in rich ſoil in the weſt and north of England. [Near Bury. Mr. WOODWARD.—Derby. Mr. WHATELY.—In orchards on the borders of Malvern Chace, Worceſterſhire. Mr. BALLARD.—On the meadows bordering the Severn, Worceſterſhire. ST.—Wellington, and Hales Owen, Shropſhire. WITH.] P. Aug. Sept.

This is one of thoſe plants that upon the concurrent teſtimony of ages was condemned as poiſonous; but Dr. Storck, of Vienna, hath taught us that it is an uſeful medicine. The roots have a good deal of acrimony. An infuſion of them in vinegar, formed into a ſyrup, by the addition of ſugar or honey, is found to be a very uſeful pectoral and diuretic. It ſeems in its virtues very much to reſemble Squill, but is leſs nauſeous and leſs acrimonious, tho' more ſedative. WITH.—In a paſture in which were ſeveral horſes, and eaten down pretty bare, the graſs was cloſely cropped even under the leaves, but not a leaf bitten. Mr. WOODWARD.

Order V.

POLYGYNIA; MANY POINTALS.

495. ALIS'MA. Thrumwort.

EMPAL. *Cup* 3 leaves; egg-ſhaped; concave; permanent.
BLOSS. *Petals* 3; circular; large; flat; greatly expanded.
CHIVES. *Threads* 6, awl-ſhaped; ſhorter than the bloſſom. *Tips* roundiſh.
POINT. *Seed-buds* more than 5. *Shafts* ſimple. *Summits* blunt.
S. VESS. *Capſule* compreſſed.
SEEDS ſolitary; ſmall.
ESS. CHAR. *Empal. leaves* 3. *Petals* 3. *Seeds ſeveral.*

ALIS'MA

ALIS'MA *Planta'go.* Leaves egg-ſhaped, pointed. *greater*
Fruit with 3 blunt corners.—

Fl. dan. 561.—*Trag.* 226. 2, *cop. in Lonic.* 142. 4.—*Fuchſ.* 42, *cop. in J. B.* iii. 787. 3.—*Matth.* 482.—*Dod.* 606. 1, *repr. in Lob. obſ.* 160. 1, *Ger. em.* 417. 1, *and cop. in Park.* 1245. 1.—*Ger.* 337. 1, *cop. in Pet.* 43. 6.

Root roundiſh, white. *Leaf-ſtalks* longer than the leaves, broader at the baſe. *Leaves* with 7 ribs, keeled, ſmooth, very entire. *Stalk* 2 or 3 feet high. *Panicle* terminating. *Fruit-ſtalks* in whorls. *Flowers* in rundles, purpliſh. *Flower-ſcales* ſhort, pointed, at the origin of the fruit-ſtalks. *Fruit* blunt, 3-cornered, depreſſed. LYONS. —*Stems* and *branches* with 3 blunt corners. *Leaves* with 8 ribs, 2 of them near each edge. *Empal.* leaves ſcored, bent back. *Pointals* numerous. *Bloſs.* fully expanded about 4 in the afternoon; *petals* ragged at the end, ſhrivelling, pale reddiſh purple, yellow at the baſe. *Threads* fixed to the receptacles. *Tips* yellow. *Receptacle* glandular. *Capſules* about 18. WITH.

Water Plantain.

In watery places, banks of pools, lakes, and rivers.

P. July, (and Auguſt. ST.)

Goats eat it. Horſes. Cows, Sheep, and Swine refuſe it.

β. RAY and HUDS. narrow leav'd

Ger. 337. 2.—*Pet.* 43. 7.

γ. HUDS. *Loes.* 62, *not examined.*

Bog about a mile from Sudbury, Eſſex.

ALIS'MA *Damaſo'nium.* Leaves heart-oblong. *ſtar-headed*
Pointals 6. Capſules awl-ſhaped.—

Lob. obſ. 160. 2, *repr. in Ger. em.* 417. 2, *and cop. in Park.* 1245. 3.

Leaves with net-like veins. *Leaf-ſtalks* flat, long. *Stem* naked. *Flowers* in rundles lateral and terminating. *Capſules* large, awl-ſhaped, ſtraddling in a ſtar-like form. Mr. WOODWARD. ST.— Of a hard texture, and ſo cloſely united at the baſe as to appear like a ſingle fruit. *Bloſſoms* white. ST.

Ditches and ſtagnant waters. [Rumford. Mr. PITCHFORD.]

P. June.—Aug.

ALIS'MA *na'tans.* Leaves egg-ſhaped, blunt. Fruit- *creeping*
ſtalks ſolitary.—

Capſules generally 8. Several *flowers* from the ſame ſheath. LINN. —The *leaves* under water ſtrap-ſhaped, thoſe which float on the ſurface egg-ſhaped. HUDS.—*Fruit-ſtalks* very long. *Flowers* large. Mr. WOODWARD.

Lakes

Lakes and wide ditches. Great Lake below the old caſtle at Llanberrys. [South end of the lake of Bala, Merionethſhire. Mr. WOOD.] P. July. Aug.

leſſer ALIS'MA *ranunculoi'des*. Leaves ſtrap-ſpear-ſhaped. Fruit globular, ſcurfy.—

Fl. dan. 122.—*J. B.* iii. 788.—*Ger. em.* 417. 3, *cop. in Park.* 1245. 2, *and Pet.* 43. 8.

In places where the water is nearly dried up the *ſtem* is from 2 to 6 inches high, hardly longer than the leaves, and ſome of the flowering *branches* trailing; but, where there is plenty of water, the *ſtem* is from 1 to 2 feet high, upright, naked, the *rundles* numerous, proliferous, and the *root-leaves* not greatly exceeding the leaf-ſtalks in breadth. Mr. WOODWARD.—*Bloſſom* bluiſh white, opens about noon.

Wet turfy bogs. [Giggleſwick Tarn, Yorkſh. CURT.—Boggy meadows, common. Bungay, Suffolk. Ellingham Fen, Norf. Mr. WOODW.—Between Burton and Derby. Mr. WHATELY.] P. June.—Sept.

Claſs VII.

HEPTANDRIA.

VII. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

496. TRIENTA'LIS. .... *Cup* 7 leaves. *Bloſs.* with 7 diviſions; flat. *Berry* 1 cell; dry.

Order I.

MONOGYNIA; I. POINTAL.

496. TRIENTA'LIS. Wintergreen.

EMPAL. *Cup* 7 leaves; ſpear-ſhaped; tapering; expanding; permanent.

BLOSS. ſtarry; flat; of 1 *petal* with 7 diviſions, ſlightly adhering at the baſe. *Segments* egg-ſpear-ſhaped.

CHIVES. *Threads* 7; hair-like; growing on the claws of the bloſſom; ſtanding wide; as long as the cup. *Tips* ſimple.

POINT. *Seed-bud* globular. *Shaft* thread-ſhaped; as long as the chives. *Summit* knobbed.

S. VESS. *Berry* not unlike a capſule; dry; globular; of 1 cell; coat very thin; opening by various ſeams.

SEEDS ſeveral; angular. *Receptacle* large; hollowed out to receive the ſeeds.

Ess.

Ess. Char. *Empalement 7 leaves. Bloſſom with 7 diviſions; equal; flat. Berry juiceleſs.*

Obs. Though 7 is the general number, it is not invariably ſo. The fruit is a dry berry, not opening with valves like a capſule.

Chickweed TRIENTA'LIS *europæ'a.* Leaves ſpear-ſhaped; very entire.—

Fl. dan. 84.*—*C. B. pr.* 99, *cop. in Pet.* 62. 13, *and Park.* 509. 5. *a.*—*C. B. pr.* 100, *cop. in H. ox.* xii. 10. *row* 3. 6, *and Park.* 509. 5. 6.

Bloſſoms cloſe on the approach of rain, when the flowers hang down. Linn.—*Stem* ſingle, about 5 inches high. *Leaves* 5 to 7, terminating the ſtem. *Flowers* commonly 2, on long fruit-ſtalks. Lightf.—Terminating *leaves* ſometimes 8, finely, but obſcurely ſerrated, ſmooth; 1 or 2 ſmaller ones ſcattered on the upper part of the ſtem. St.—*Leaves* ſometimes oval-ſpear-ſhaped. Mr. Woodward.—*Bloſſoms* white, on long fruit-ſtalks.

Woods and turfy heaths in the northern counties. Near Bingley, Yorkſhire, plentifully. Mooriſh ground on the ſides of the Highland mountains. P. June. July.

Horſes, Goats, and Sheep eat it. Cows refuſe it.

β. Huds. *Pyrola alſines flore braſiliana. R. ſyn.* 286.

Near Giſbury, in Cleveland. Ray.

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* But conſiderably larger than it is uſually found in this country. Mr. Woodw.

Claſs VIII.

OCTANDRIA.

VIII. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

* Flowers *perfect.*

† Acer.

507. EPILO'BIUM. .... *Bloſſom* 4 petals. *Cup* 4 leaves; ſuperior. *Capſule* 4 *cells*. *Seeds* feathered.

519. CHLO'RA. ..... *Bloſs.* with 8 clefts. *Cup* 8 leaves; beneath. *Capſule* 1 cell, 2 valves. *Seeds* many.

523. VACCIN'IUM. .... *Bloſs.* 1 petal. *Cup* with 4 teeth; ſuperior. *Chives* growing on the receptacle. *Fruit* a berry.

524. ERI'CA. ..... *Bloſs.* 1 petal. *Cup* 4 leaves; beneath. *Chives* growing on the receptacle. *Fruit* a capſule.

† Andromeda Daboæcia.

** Flowers *imperfect.*

† Monotropa hypopithys.

526. DAPH'NE. ..... *Cup* with 4 equal clefts; reſembling a bloſſom and incloſing the chives. *Berry* pulpy.

Ess. Char. *Empalement 7 leaves. Bloſſom with 7 diviſions; equal; flat. Berry juiceleſs.*

Obs. Though 7 is the general number, it is not invariably ſo. The fruit is a dry berry, not opening with valves like a capſule.

Chickweed TRIENTA'LIS *europæ'a.* Leaves ſpear-ſhaped; very entire.—

Fl. dan. 84.*—*C. B. pr.* 99, *cop. in Pet.* 62. 13, *and Park.* 509. 5. *a.*—*C. B. pr.* 100, *cop. in H. ox.* xii. 10. *row* 3. 6, *and Park.* 509. 5. 6.

Bloſſoms cloſe on the approach of rain, when the flowers hang down. Linn.—*Stem* ſingle, about 5 inches high. *Leaves* 5 to 7, terminating the ſtem. *Flowers* commonly 2, on long fruit-ſtalks. Lightf.—Terminating *leaves* ſometimes 8, finely, but obſcurely ſerrated, ſmooth; 1 or 2 ſmaller ones ſcattered on the upper part of the ſtem. St.—*Leaves* ſometimes oval-ſpear-ſhaped. Mr. Woodward.—*Bloſſoms* white, on long fruit-ſtalks.

Woods and turfy heaths in the northern counties. Near Bingley, Yorkſhire, plentifully. Mooriſh ground on the ſides of the Highland mountains. P. June. July.

Horſes, Goats, and Sheep eat it. Cows refuſe it.

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Claſs VIII.

OCTANDRIA.

VIII. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

* Flowers *perfect.*

† Acer.

507. EPILO'BIUM. .... *Bloſſom* 4 petals. *Cup* 4 leaves; ſuperior. *Capſule* 4 *cells*. *Seeds* feathered.

519. CHLO'RA. ..... *Bloſs.* with 8 clefts. *Cup* 8 leaves; beneath. *Capſule* 1 cell, 2 valves. *Seeds* many.

523. VACCIN'IUM. .... *Bloſs.* 1 petal. *Cup* with 4 teeth; ſuperior. *Chives* growing on the receptacle. *Fruit* a berry.

524. ERI'CA. ..... *Bloſs.* 1 petal. *Cup* 4 leaves; beneath. *Chives* growing on the receptacle. *Fruit* a capſule.

† Andromeda Daboæcia.

** Flowers *imperfect.*

† Monotropa hypopithys.

526. DAPH'NE. ..... *Cup* with 4 equal clefts; reſembling a bloſſom and incloſing the chives. *Berry* pulpy.

Order II.

DIGYNIA; II. POINTALS.

607. CHRYSOSPLE'NIUM *Bloſs.* 0. *Cup* ſuperior. *Capſule* 2-celled, 2-beaked.

† Scleranthus annuus. Scleran. perennis. Chlora perfoliata. Polygonum penſylvanicum.

Order III.

TRIGYNIA; III. POINTALS.

537. POLYG'ONUM. .... *Bloſs.* 0. *Cup* with 5 diviſions. *Seed* 1; naked.

Order IV.

TETRAGYNIA; IV. POINTALS.

542. ADOX'A. ..... *Bloſs.* with 4 or 5 clefts; ſuperior. *Cup* 2 leaves. *Berry* with 4 or 5 ſeeds.

543. ELATI'NE..... *Bloſſom* 4 petals. *Cup* 4 leaves. *Capſule* 4 cells.

541. PA'RIS. ..... *Bloſs.* 4 petals; awl-ſhaped. *Cup* 4 leaves. *Berry* 4 cells.

† Myriophyllum verticillatum.

Order

Order I.

MONOGYNIA; I. POINTAL.

507. EPILO'BIUM. Willowherb.

EMPAL. *Cup* 4 leaves; ſuperior. *Leaves* oblong; tapering; coloured; deciduous.

BLOSS. *Petals* 4; circular; expanding; broadeſt on the outer part; notched at the end.

CHIVES. *Threads* 8; awl-ſhaped; alternately ſhorter. *Tips* oval; compreſſed; blunt.

POINT. *Seed-bud* beneath; cylindrical; very long. *Shaft* thread-ſhaped. *Summit* with 4 clefts; thick; blunt; rolled back.

S. VESS. *Capſule* very long; cylindrical; ſcored; 4 cells, 4 valves.

SEEDS numerous; oblong; crowned with a feather. *Receptacle* very long; 4-cornered; looſe; limber; coloured.

ESS. CHAR. *Empalement with 4 clefts. Petals* 4. *Capſule oblong; beneath. Seeds feathered.*

OBS. In ſome ſpecies the chives and pointals are upright, in others they lean towards the lower ſide of the bloſſom.

* *Chives declining.*

EPILO'BIUM *anguſtifo'lium*. Leaves ſcattered, ſtrap-ſpear-ſhaped. Flowers unequal.— *Roſebay*

Fl. dan. 289.—*Curt.* ii. 18.—*Park. par.* 267. 6.—*Ger. em.* 477. 7, *cop. in Pet.* 52. 10.—*J. B.* ii. 907. 1, *cop. in H. ox.* iii. 11. *row* 1. 1. *f.* 3.—*(Cluſ.* ii. 51. 3, *repr. in Dod.* 85. 2, *Lob. obſ.* 186. 1, *Ger. em.* 477. 8, *and cop. in Park.* 548. 1, *and H. ox.* iii. 11. *row* 2. 2, *is variety α the Lyſimachia Chamœnerion dicta C. B.)*

Leaves at their firſt appearance rolled in at the edge. *Petals* entire. *Threads* approaching the ſhaft at the baſe. *Pointal* declining. LINN. *Petals*, the 2 lowermoſt ſomewhat remote from each other. *Leaves*, the lateral nerves on the under ſurface, nearly at right angles with the mid-rib. SCOP. Mr. WOODWARD.—*Threads* nearly of equal length, at firſt bending down, finally becoming nearly upright.

Curt.—*Bloſſoms* purpliſh roſe-colour, or white. *Leaves* ſlightly toothed. *Chives* nearly equal. *Receptacle* full of honey. St.

E. anguſtif. var. β. Linn.—*Lyſimachia Chamænerion dicta latifolia. C. B. pin.* 245. Boehm. St.—*Chamænerion. Ger. em.* 477. St. *Roſebay Willowherb.*

Woods and hedges. Meadows near Sheffield; Alton, Hants; Maize Hill, beyond Greenwich; many places in Scotland; Graſs Wood, near Kilnſay, Yorkſhire. Curt.—[And near Berkhamſtead, Herts, plentifully. Mr. Woodward.] P. July.—Sept.

Goats are extremely fond of it. Cows and Sheep eat it. Horſes and Swine refuſe it.—The *Phalæna Porcellus*, and *Sphinx Elpenor*, are found upon it.—The ſuckers of the root are eatable. An Infuſion of the plant has an intoxicating property, and the Kamtſchatadales brew a ſort of ale from the pith, and from the ale make vinegar. The down of the ſeeds alſo mixed with cotton or furr has been manufactured into ſtockings and other articles of cloathing.

** *Chives upright, regular; petals cloven.*

largeflowered EPILO'BIUM *hirſu'tum.* Linn. Schreb. *ſp. fl. lipſ. in conſp.* Lightf. Curt. Mr. Woodward. St.—Leaves oppoſite, ſpear-ſhaped, ſerrated, running down and embracing the ſtem. Linn.—Leaves running down the ſtem, the lower ones oppoſite. Stem branched. Huds.—Leaves egg-ſpear-ſhaped, half-embracing the ſtem, hairy. Stem very much branched. Root creeping. Curt.

Fl. dan. 326.—*Curt.* ii. 20.—*Fuchſ.* 491, *cop. in J. B.* ii. 905. 3, *and Lonic.* i. 135. 2.—*Ger.* 386. 3.—*Ger. em.* 476. 6, *cop. in Pet.* 52. 11, *and H. ox.* iii. 11. 3.

Plant ſomewhat hairy. *Stem* cylindrical, with expanding ſoft hairs. *Leaves* unequally ſerrated, ſomewhat downy, running a little way down the ſtem, the middle of the baſe being above the ſides of the baſe. *Branches* oppoſite. *Bunches* terminating. *Flowers* on fruit-ſtalks, ſolitary. *Floral-leaf* ſpear-ſhaped, ſitting, ſerrated. *Seed-bud* woolly. *Petals* ſlightly cloven. Linn.—*Stems* branched, downy. *Leaves* downy. *Bloſs.* fleſh-coloured, or purple. Huds.—*Leaves* with ſoft hairs on both ſides; ſerratures hooked, blunt. *Branches* and *fruit-ſtalks* from the boſom of the leaves. *Empal. leaves* united at the baſe by means of a glandular receptacle. *Petals* twice as long as the empalement, inverſely heart-ſhaped, of a fine roſe-colour, claws white with white ſcores ſpreading upwards. *Threads* white, the longeſt not half the length of the petals. *Tips* and *duſt* white. *Seed-bud* 4-cornered, the corners purple and woolly. *Shaft* crooked; white. *Summit* white. *Capſule* with 4 purple corners, and thickſet with ſoft ſhort hair. *Seeds* nearly egg-ſhaped. With. —*Empal.*

—*Empal.* of 1 leaf, with 4 deep diviſions. CURT. ST.—*Stem* upright, flatted at the inſertion of the branches. *Upper branches* generally ſolitary, alternate. *Leaves* oblong-ſpear-ſhaped, the *uppermoſt* alternate. *Chives*, 4 of them nearly as long again as the other 4. *Tips* oblong, after ſhedding their duſt bowed. ST.

E. ramoſum. HUDS.*—*Chamænerion floribus ex alis ſeſſilibus, foliis lanceolatis, dentatis villoſis. Boeh. lipſ. n.* 298, *acknowledged to be E. hirſutum α of Linnæus, in Schreber's Linnæan conſpectus at the end of his ſpic. flor. lipſ.—(Chamænerion obſcurum Schreb. p.* 147, *referred to by Mr. Hudſon, is a diſtinct ſpecies.)* ST.

Great Hairy Willowherb. Codlings and Cream.

Moiſt hedges, ditches, and banks of brooks, rivers, and lakes. P. July.

The top ſhoots have a very delicate fragrance reſembling ſcalded codlings, whence one of its names, but ſo tranſitory, that, before they have been gathered 5 minutes, it is no longer perceptible.

Horſes, Sheep, and Goats eat it. Cows are not fond of it. Swine refuſe it.

EPILO'BIUM *villoſum.* CURT.—Leaves ſpear-ſhaped, ſerrated, almoſt running down the ſtem, the lower oppoſite. Stem moſtly ſimple. HUDS.—Leaves ſitting. Stem woolly. SCHREB. ST.—Leaves oblong-ſpear-ſhaped, toothed, downy. Stem cylindrical, woolly. CURT. ST. *woolly*

Curt. ii. 21.†—*Fl. dan.* 347.—*H. ox.* iii. 11. 4, *cop. in Pet.* 52. 12.—*(Ger.* 387. 8, *is a different ſpecies.)*

Stem very rarely branched, unleſs it has received ſome injury. *Flowers* ſmall, purple. HUDS.—*Lower-leaves* oppoſite, the *upper* alternate, by no means running down the ſtem, but ſitting, or rather fixed to an exceedingly ſhort leaf-ſtalk, rounded at the baſe, with diſtant ſerratures, the ſerratures ſmaller and much more widely ſeparated than thoſe of *E. hirſutum*; woolly on each ſide, very ſoft and not ſo much pointed. *Seed-bud* woolly, with expanding ſoft hairs, but at laſt becoming bare. SCHREB. ST.—*Root* fibrous, not creeping. *Stem* ſometimes branched. *Leaves* ſoft, teeth glan-

* Mr. Hudſon is not to be juſtified in thus altering the Linnæan nomenclature, and applying the name, which Linnæus had given to this, to another ſpecies. Mr. WOODWARD. ST.—Mr. Hudſon may alledge, that in the Fl. ſuec. the *large-flowered* ſpecies is made a variety of the *ſmall-flowered*, but the deſcription there ſubjoined he will find to belong to the *large-flowered* ſpecies, and the error of the Fl. ſuec. he will ſee corrected in the Sp. pl. ST.

† But repreſented too hairy. Mr. WOODWARD. ST.

dular, whitiſh underneath. *Petals* inverſely heart-ſhaped. CURT. ST.—*Stem* cylindrical alſo at the inſertion of the branches. *Leaves* in ſome plants nearly all oppoſite, in others nearly all alternate. *Fruit-ſtalks* longer than the empalement. *Bloſſoms* fleſh-coloured, generally cloſed. *Shaft* purple. *Summits* 4, white, rolled back. ST.

E. parviflorum. ST. *in Bot. Arr. ed.* i. *Schreb. ſpic.*—*E. hirſutum. β. Linn.*—*hirſutum. Huds.*—*Lyſimachia ſiliquoſa ſylveſtris hirſuta flore minore. J. B. hiſt.* ii. *p.* 906.—*Wood Willowherb. Ger. em.* 479. *n.* 12.

Watery places, and ſides of ditches and rivulets. P. July. Aug.

ſmooth-leaved EPILO'BIUM *monta'num.* Leaves oppoſite, egg-ſhaped, toothed. LINN.—*The upper alternate.* HALL. Mr. WOODWARD, WITH.

Curt. iii. 33.—*Walc.*—*Cluſ.* ii. 51. 2, *repr. in Dod.* 85. 1, *Lob. obſ.* 185. 4, *Ger. em.* 479. 11, *and cop. in Park.* 548. 3, *and Pet.* 53. 1.

Stem cylindrical, upright, reddiſh, very ſoft, ſomewhat downy. *Leaves* ſmooth, finely toothed, very ſoft, eſpecially underneath, with a down juſt perceptible. LINN.—*Petals* inverſely heart-ſhaped, pale purple. CURT.—*Leaves* ſpear-egg-ſhaped. *Empalement* ſlightly hairy on the outſide and at the edges. *Petals* veined with deeper purple lines. *Chives* lying moſtly on one ſide of the ſhaft, which is bowed upwards. *Shaft* reddiſh. WITH.—*Leaves*, teeth unequal, ſomewhat hooked, pointing towards the end of the leaf; with a juſt perceptible downineſs on both ſurfaces. *Petals* ſometimes white. ST.

Woods, hedge rows, ſhady lanes, and moiſt meadows, in a gravelly ſoil, and ſometimes on walls in courts. B. July.

Goats eat it. Horſes are not fond of it.

2. Three and 4 leaves at a joint. REICH. CURT. WITH.

ſpurious EPILO'BIUM *du'bium.* CURT. cat. n. 567.

ſquare-ſtalked EPILO'BIUM *tetrago'num.* Leaves ſpear-ſhaped, finely toothed, the lowermoſt oppoſite. Stem 4-cornered. LINN.—Summit very entire. CURT.

Curt. iii. 27.—*Ger.* 387. 8 *and 7.?*

The young *leaves* have livid ſpots, and the tender top of the plant hangs down. *Summit* very entire. WILLICH.—All the *leaves* ſometimes ſtrap-ſpear-ſhaped. Mr. WOODW.—*Stem* 4-cornered, eſpecially at the baſe, upwards rounder, but ſtill angular, ſmooth, and ſometimes ſlightly downy. *Branches* alternate. *Leaves* egg-ſpear-ſhaped, ſharp-pointed, ſerrated with pointed teeth. POLLICH.—*Stem* not creeping. *Stem* upright, very much branched. *Leaves* ſmooth

ſmooth, ſerrated, the lower ſpear-ſhaped, the upper ſtrap-ſpear-ſhaped. *Empalement* with 4 diviſions. CURT. ST.

Marſhes, and ſides of rivulets and ditches. P. July.

[Near Bungay, Suffolk; and Alconbury, Huntingdonſhire. Mr. WOODWARD.]

EPILO'BIUM *paluſ'tre.* Leaves oppoſite, ſpear-ſhaped, very entire. Petals notched at the end. Stem upright. LINN.—*Leaves imperfectly toothed.* ST. *marſh*

Ger. 386. 4, *cop. in Pet.* 53. 4.—*(Ger. em.* 477. 8, *cop. in H. ox.* iii. 11. *row* 2. 2, *is a variety of E. anguſtifolium.)*

Leaves imperfectly toothed. *Petals* reddiſh, nicked, not cloven half way down. *Pods* on fruit-ſtalks. LINN.—*Summit* thickiſh club-ſhaped, ſlightly cloven at the point into 4. LEERS.—*Stem* cylindrical, ſmooth or downy, a foot high. *Leaves* ſitting, the lower oppoſite, the upper alternate. *Summit* with generally 4 clefts. RELH.—*Summit* thick, blunt, yellowiſh white. ST.—*Upper-leaves* alternate, varying extremely in breadth. Short leafy branches riſe from the boſom of the leaves. Mr. WOODWARD.—*Leaves* ſitting, ſmooth. *Empalement* a little hairy on the outſide. *Petals* notched at the end, reddiſh purple, with deeper purple ſtreaks. *Tips* at the time of ſhedding their duſt, adhere firmly to the ſummits ſo as hardly to be ſeparated without violence, but before and after that time they do not touch it. WITH.

Marſhes, bogs, and ſides of lakes. P. July.

Horſes, Sheep, and Goats eat it. Swine refuſe it.

EPILO'BIUM *alpi'num.* Leaves oppoſite, egg-ſpear-ſhaped, very entire. Pods ſitting. Stem creeping.— *alpine*

Fl. dan. 322.—*Lightf.* 10. 1, *at p.* 242.

Stem trailing, hardly a ſpan high. LINN.—Afterwards upright, bearing 1 or 2 flowers at the top. *Leaves* quite ſmooth. *Pods* quite ſmooth, 4 or 5 times longer than the leaves. LIGHTF.——*Leaves* ſometimes ſlightly toothed. Mr. WOODWARD. ST.

Alpine rivulets. Cheviott Hills, Northumberland; near Settle, Yorkſhire. Ben Buy, Ben Lomond, and near Little Loch Broom, Roſsſhire. Mountains in Breadalbane and Corry Yaal, in Glenco. [Moiſt rocks about Buckbarrow Well. CURT.] P. July. Aug.

519. CHLO'RA. Yellow-wort.

EMPAL. *Cup* 8 leaves; permanent. *Leaves* ſtrap-ſhaped; open.

BLOSS. 1 *petal*; ſalver-ſhaped. *Tube* ſhorter than the empalement, incloſing the ſeed-bud. *Border* with 8 diviſions; ſegments ſpear-ſhaped; longer than the tube, (lapping over each other. WITH.)

CHIVES. *Threads* 8; (awl-ſhaped: WITH.) very ſhort; fixed to the mouth of the tube. *Tips* ſtrap-ſhaped; upright; ſhorter than the ſegments of the bloſſom.

POINT. *Seed-bud* egg-oblong. *Shaft* thread-ſhaped; as long as the tube. *Summits* 4; oblong; cylindrical.

S. VESS. *Capſ.* egg-oblong; of 1 cell; ſomewhat flatted; with 2 furrows; 2 valves; the ſides of the valves bowed inwards.

SEEDS numerous; very ſmall.

ESS. CHAR. *Empal.* 8 *leaves. Bloſs.* 1 *petal; with* 8 *clefts. Capſule* 1 *cell,* 8 *valves, containing many ſeeds.*

perforated CHLO'RA *perfolia'ta.* Leaves perforated.—*Walc.—Barr.* 315 *and* 316.—*J. B.* iii. 355, *cop. in H. ox.* v. 26. *row* 1. 1. *and* 2. *f.* 1, *and Pet.* 55. 8.—*Cluſ.* ii. 180, *repr. in Lob. obſ.* 219, *Ger. em.* 547. 2, *and cop. in Park.* 272. 4, *and Ger.* 437. 2.

Stem and *leaves* ſea-green. SCOP. RELHAN. ST.—*Empal.* leaves narrow, ſpear-ſhaped. *Bloſs.* gold coloured. *Summits* 2. RELH. —*Stem* from 3 inches to 3 feet high. *Root-leaves* oval, ſitting, ſpread in form of a ſtar; *loweſt ſtem-leaves* oval, ſpear-ſhaped, ſitting, the reſt perforated, oval-ſpear-ſhaped. *Flowers* in a kind of rundle, of 3 rays, encompaſſed by the uppermoſt leaf, the middle one bearing a ſingle flower without any leaves; the outer ones terminated by a leaf ſimilar to the ſtem-leaves, from which ariſes a rundlet ſupporting 1 or more flowers. *Empal.* ſometimes equal to, ſometimes longer, and ſometimes ſhorter than the bloſſom; *leaves* awl-ſhaped. Mr. WOODWARD.—*Chives* 6 to 9. Mr. HOLLEFEAR.—*Root-leaves* inverſely egg, and ſpear-ſhaped; *ſtem-leaves* hollow, each as if compoſed of 2 ſpear or heart-ſhaped leaves, running into each other at the baſe. *Stem* and *branches* terminated by ſolitary flowers, with a lateral branch ſpringing on each ſide from their baſe. *Empal. leaves* ſometimes 10. *Bloſſom*, ſegments ſometimes 9, ſlightly nicked at the point. *Chives* ſometimes 9 and 10, ſhorter than the bloſſom. *Shaft* cloven, the arms forked at the

the end. *Tips* hardly twiſted. St.—*Stem* cylindrical, ſmooth. *Flowers* in a ſort of rundle, terminating. *Empal. leaves* pointed, ſometimes 9. *Bloſs. tube* ſkinny; *ſegments* ſometimes 9, deep yellow, with a milky juice. *Chives* ſometimes 9, yellow. *Tips* oblong. *Duſt* yellow. *Seed-bud* oblong, longer than the tube of the bloſs. *Shaft* thickeſt towards the top, cloven, yellow. *Summits* 2, ſhaped like a horſe ſhoe, yellow. *Capſule* oblong, with 4 blunt corners. *Seeds* egg-ſhaped. With.

Mountainous meadows and paſtures, in a calcareous ſoil. [Near Bungay, Suffolk. Mr. Woodward.—Side of Malvern Chace, Worceſterſhire. Mr. Ballard.—Edge of the Ridd Cliff, Worceſterſh. St. Ranton Abbey, Staffordſh. With.] A. June. St. July.

523. VACCIN'IUM. Whortle.

Empal. *Cup* very ſmall; ſuperior; permanent.
Bloss. 1 *petal*; bell-ſhaped; with 4 clefts. *Segments* rolled backwards.
Chives. *Threads* 8; ſimple. *Tips* with 2 horns; opening at the point; and furniſhed with 2 expanding awns, which are fixed to the back.
Point. *Seed-bud* beneath. *Shaft* ſimple; longer than the chives. *Summit* blunt.
S. Vess. *Berry* with 4 cells; globular; with a hollow dimple.
Seeds few; ſmall.

Ess. Char. *Empal. ſuperior. Bloſſom* 1 *petal. Threads inſerted into the receptacle. Berry* 4 *cells*; *many ſeeds.*

Obs. In ſome ſpecies all the parts of fructification are increaſed ¼th in number. The *empalement* in *V. myrtillus* is very entire, in moſt of the reſt with 4 clefts. The new blown *bloſſom* is hardly divided, but in the *V. Oxycoccos* it is rolled back to the baſe.

* *Leaves annual, or deciduous.*

VACCIN'IUM *Myrtil'lus*. Fruit-ſtalks with 1 flower. Leaves ſerrated, egg-ſhaped, deciduous. Stem angular.— *Bilberry*

Sheldr. 18.—*Matth.* 231.—*Dod.* 768. 2, *repr. in Lob. obſ.* 546. 2, *Ger. em.* 1415. 1, *and cop. in Park.* 1456. 1.—*Blackw.* 463.

Chives 10. *Bloſs. ſegments* 5. *Capſule*, cells 5. *Stem* and *branches* 4-cornered. *Leaves* alternate, ſerratures blunt. *Berries* black. Linn.—*Bloſs.* nearly globular, but a little flatted at the baſe; pale reddiſh purple; *mouth* very ſmall, with 5 ſmall reflected teeth. With.—*Bloſs.* reddiſh white. *Berries* bluiſh black.

Black

Black Worts. Black Whortle-berries. Hurtle-berries.. Bilberries. Wind-berries. Blea-berries.

Woods and heaths. [Porland Heath. Mr. CROWE.—Rocks above Great Malvern, Worceſterſhire. Mr. BALLARD.] S. Apr. May.

The berries are very acceptable to children, either eaten by themſelves, or with milk, or in tarts. The moor game live upon them in the autumn. The juice ſtains paper or linen purple.

Goats eat it. Sheep are not fond of it. Horſes and Cows refuſe it.

great VACCIN'IUM *uliginoſum*. Fruit-ſtalks with 1 flower. Leaves very entire, inverſely egg-ſhaped, blunt, ſmooth.

Fl. dan. 231.—*Cluſ.* i. 62. 1, *repr. in Ger. em.* 1416. 6, *and cop. in Park.* 1456. 2.

Stems generally a foot high. *Leaves* when young fringed at the baſe, flat. *Berries* blue, with 4 ſlight angles, with a white pulp. LINN.—*Leaves* with a net-work of veins underneath, ſometimes ſlightly dented at the end, often tinged with red. Mr. WOODW.

Great Bilberry Buſh. [*Raſh-berries.* Mr. WOODWARD.]

Moiſtiſh woods, heaths, and paſtures, and tops of mountains. Between Hexham and Penrith. Foreſt of Whinfield, Weſtmorel. Near Julian's Bower, Highland mountains. [Near Gambleſby, Cumberland. RAY. Mr. WOODWARD.] S. April. May.

Children ſometimes eat the berries; but in large quantities they occaſion giddineſs, and a ſlight head-ach, eſpecially when full grown, and quite ripe. Many vintners in France are ſaid to make uſe of the juice to colour their white wines red.

Horſes, Cows, Sheep, and Goats eat it. Swine refuſe it.

** *Leaves evergreen.*

red VACCIN'IUM *Vitis-idæ'a*. Bunches terminating, nodding. Leaves inverſely egg-ſhaped; edge very entire and rolled back, dotted underneath. LINN.—*Edge often obſcurely ſerrated towards the end.* ST.

Fl. dan. 40.—*Dod.* 770. 1, *repr. in Ger. em.* 1415. 2, *and cop. in Park.* 1456. 4, *leaves the beſt.*—*J. B.* i. *a.* 522.

Is ſeldom found in bloſſom. CURT.—*Stems* obliquely aſcending, ſcarcely a ſpan high, cylindrical. *Leaves* alternate. *Berries* red. LINN.—*Leaves* with deep veins above, which are equally prominent underneath, ſome much ſmaller leaves intermixed with the reſt. Mr. WOODWARD,——*Floral-leaves* and *empalement* coloured. *Threads* very ſhort, white, woolly. *Tips* red, longer than the threads, of 2 cells, each of which bears a yellowiſh tube at the point. *Duſt* yellow. *Shaft* green. *Receptacle* glandular. WITH.—

Leaves

Leaves ſlightly dented at the end, the mid-rib terminating in a roundiſh knob, pale underneath, dots dark brown, prominent. *Stems* and *leaf-ſtalks* downy. St.—*Bloſſoms* reddiſh white.

Red Whortle-berries.

Mountainous parts of Derbyſhire, Staffordſhire, and Yorkſh. Ray.—Dry places in heaths, woods, and tops of mountains. Lightf.—And marſhy heaths. Huds.—[Top of Skiddow, and Ingleborough. Mr. Woodw.—Cannock Heath, Staffordſhire, in a dry gravel. St.] S. March. April.

The berries are acid, and not very grateful, but they are eaten by the Laplanders, and by the country people, and are ſent in large quantities from W. Bothnia to Stockholm for pickling. Linn. —They are alſo made into tarts, rob, and jelly.

Goats eat it. Cows, Sheep, and Horſes refuſe it.

VACCIN'IUM *Oxycoc'cos*. Leaves very entire, rolled back at the edge, egg-ſhaped. Stems creeping, thread-ſhaped, without hairs.— *Cran-berry*

Fl. dan. 80, *cop. in Blackw.* 593.—*Lob. obſ.* 547. 3.—*J. B.* i. *a.* 227. 2.—*Dod.* 770. 2, *repr. in Ger. em.* 1419, *and cop. in Park.* 1229, *and Ger.* 1367.

Bunch very ſhort. *Fruit-ſtalks* very long. *Floral-leaves* 2, alternate. *Bloſs.* ſegments rolled back. Linn.—*Leaves* ſometimes egg-ſpear-ſhaped, alternate, on ſhort fruit-ſtalks. Mr. Woodw.—Thick, grey underneath. *Fruit-ſtalks* red, and ſemi-tranſparent. *Flowers* nodding, generally 1 on a fruit-ſtalk. *Empal.* coloured. *Bloſſom*, *ſegments* oblong, bent back as in the flower *Solanum Dulcamara*, which it much reſembles in form, falling off as if diſtinct petals. *Threads* ſpear-ſhaped, brown, hairy at the edge. *Tips* orange-coloured, of 2 cells, each ending in a hair-like tube open at the end. *Shaft* red, tubular. *Summit* an open hole. *Empalement* ſmooth, but fringed at the points. *Fruit-ſtalks* downy, crooked at the end. *Floral-leaves* about half way up near each other. *Bloſs.* deep fleſh-colour. *Berry* pale red, mottled with purple dots, when fully ripe purpliſh red. With.

Cran-berries. Moſs-berries. Moor-berries. Fen-berries. Marſh Whorts. Marſh Whortle-berries. Corn-berries.

Peaty bogs, near Glaſtenbury. [Sutton Coldfield Park, Warwickſhire. Ray. St.—Derſingham Moor, Norfolk. Mr. Crowe. —In the North, frequent. Mr. Woodward.] S. May. June.

The berries have an agreeabliſh acidity, but are ſeldom eaten raw. They are made into tarts, which are much eſteemed, but on account of a very peculiar flavour are diſliked by ſome. They may be kept for ſeveral years by wiping them clean, and then cloſely corking

corking them up in dry bottles; but the beſt method of preſerving them is, to fill up the interſtices with pure ſpring water. St.—At Longtown, in Cumberland, 20 or 30l.'s worth are ſold by the poor people each market day, for 5 or 6 weeks together. Light.

524. ERI'CA. Heath.

Empal. *Cup* with 4 leaves; egg-ſhaped; upright; coloured, permanent.

Bloss. 1 *petal*; bell-ſhaped; with 4 clefts; often diſtended.

Chives. *Threads* 8; hair-like; ſtanding on the receptacle. *Tips* cloven at the point.

Point. *Seed-bud* roundiſh. *Shaft* thread-ſhaped; ſtraight; longer than the chives. *Summit* reſembling a little crown; with 4 clefts, and 4 edges.

S. Vess. *Capſule* roundiſh; incloſed; ſmaller than the cup; with 4 cells, and 4 valves.

Seeds numerous; very ſmall.

Ess. Char. *Empal.* 4 *leaves. Bloſſom* 4 *clefts. Threads inſerted into the receptacle. Tips cloven. Capſule* 4 *cells.*

Obs. In ſome ſpecies the cup is double. The figure of the bloſſom varies between egg-ſhaped and oblong. The chives in ſome ſpecies are longer, and in others ſhorter than the bloſſom. Linn.—The ſummit alſo varies. Reich.

* *Tips awned.*

common ERI'CA *vulga'ris*. Tips awned. Bloſſom bell-ſhaped, nearly equal. Empalement double. Leaves oppoſite, arrow-ſhaped. Linn. *ſyſt. veg.*—Leaves tiled, in 4 lines. *Hort cliff.* St.—Inner empal. longer than the bloſs. St.*

Curt. iv. 50.—*Walc.*—*Fl. dan.* 677.—*Matth.* 152.—*Fuchſ.* 254, *cop. in Trag.* 952, *and Dod.* 767. 1, *which repr. in Ger. em.* 1380. 1, *and cop. again in Park.* 1482. 5.—*Lonic.* i. 37. 1.—*Ger.* 1196. 1 *and* 2.—*Park.* 1480, 1.

Leaves tiled, in 4 lines, oppoſite, nearly 3-edged, keel channelled, fixed above the baſe, baſe pointed, cloven. *Bloſs.* cloven into 4, more than half way down, of the ſize and appearance of the empalement. *Shaft* aſcending, generally projecting beyond the bloſſom. Linn.—*Little branches* ſquare. *Leaves* nearly egg-ſhaped, bluntiſh,

* Calyce interiore corolla longiore. St.

bluntiſh, with a whitiſh furrow, ſlightly hairy at the edge. *Flowers* ſolitary, on fruit-ſtalks, from the ſides of the branches, ſlightly nodding, oppoſite, but generally pointing one way, giving the branches the appearance of long bunches, but leafy ſhoots will be always found at the end. *Fruit-ſtalks* ſhorter than the flower, with a floral-leaf at the baſe. *Floral-leaves* roundiſh arrow-ſhaped, hollow, woolly at the edge, 2, and ſometimes 3 at the baſe of the flower, of the ſame ſhape as thoſe of the outer empalement. *Outer empal.* often tinged with red, woolly without; the 2 outer ſomewhat larger, egg-ſhaped, ſlightly keeled; the 2 inner roundiſh-egg-ſhaped, ſomewhat membranaceous. *Inner empal.* of 4 leaves, of the colour, and nearly of the ſame texture as the bloſſom, five times as long as the outer; *leaves* oval-oblong, concave, ſlightly adhering at the baſe, alternating with the ſegments of the bloſſom, open, after flowering approaching with the points bent in. We may here obſerve a curious inſtance of the gradual tranſition from the green herbaceous leaves of the ſtem, to the more delicate texture of the bloſſom. *Bloſſom* bell-ſhaped, flatted at the baſe, pale purpliſh roſe-colour, whitiſh towards the baſe, divided 2-3ds of the way down; *ſegments* egg-ſhaped, blunt, equal, open. *Chives* juſt ſhorter than the bloſſom. *Threads* awl-ſhaped, doubled to and fro towards towards the point, white, or tinged with purple. *Tips* ſpear-ſhaped, brown, of 2 cells, cells opening at the ſides by ſpear-ſhaped apertures nearly as long as the tips; *horns* awl-ſhaped, white, microſcopically woolly, ſometimes cloven, pointing downwards, nearly half as long as the tip. *Duſt* white. *Seed-bud* orbicular, but thick in proportion to its breadth, reddiſh, with 8 perpendicular ridges beſet with ſoft white hairs. *Shaft* ſlanting upwards, white, purpliſh above, longer than the empal. *Summit* purpliſh red. *Capſule* ſlightly depreſſed. ST.—*Branches* in oppoſite pairs. *Empalement* cloſe to the baſe, 4 or 5 circular, concave, coloured leaves, fringed with ſoft hairs; and on the outſide of theſe 2 or 3 others partly reſembling theſe, and partly the leaves of the empalement. *Proper cup* coloured, ſo as in every reſpect to reſemble the bloſſom. *Bloſſom* not diſtended, cleſts 4 or 5. *Threads* flat, white, ſpringing from ſmall glandular ſubſtances at the baſe of the ſeed-bud, *Tips* reddiſh brown, with white horns at the baſe, *Shaft* white. *Summit* red. *Seed-veſſel* incloſed by the proper cup. WITH. —*Stems* brown, woody.

Heath. Ling. Grig, in Shropſhire. *Hather*. in Scotland.

Heaths and woods. S. June.—Aug.

This plant, but little regarded in happier climates, is made ſubſervient to a great variety of purpoſes, in the bleak and barren Highlands of Scotland. The poorer inhabitants make walls for their

their cottages, with alternate layers of heath, and a kind of mortar made of black earth and ſtraw, the woody roots of the heath being placed in the center, the tops externally and internally. They make their beds of it, by placing the roots downwards, and the tops only being uppermoſt, they are ſufficiently ſoft to ſleep upon. Cabbins are thatched with it.——In the iſland of Ilay, ale is frequently made by brewing one part malt, and 2 parts of the young tops of heath; ſometimes they add hops. Boethius relates, that this liquor was much uſed by the Picts. *Penn. tour.* 1772. *p.* 229.—Woollen cloth boiled in alum water, and afterwards in a ſtrong decoction of the tops of heath, comes out a fine orange colour. The ſtalks and tops will tan leather. In England beſoms are made of it, and faggots to burn in ovens, or to fill up drains that are to be covered over. Sheep and Goats will ſometimes eat the tender ſhoots, but they are not fond of them.—Cattle not accuſtomed to browſe on heath, give bloody milk, but are ſoon cured by drinking plentifully of water. *Penn. tour.* 1772. *p.* 229. Horſes ſometimes refuſe it. ST.—Bees extract a great deal of honey from the flowers; and, where heath abounds, the honey has a reddiſh caſt.

downy-leaved β. LINN.—Leaves and branches covered with white downy hairs. WITH.

Erica vulgaris hirſuta. Gerard. 1380. *Ray's ſyn.* 471.—*Erica myricæ folio hirſuto. Bauh. pin.* 485.—*Erica vulgaris hirſutior. Park.* 1480. (WITH.)

[Enville Common, Staffordſh. ST.—Birmingh. Heath. WITH.]

whiteflower'd 3. Bloſſoms white. ST.

croſs-leaved ERI'CA *Tet'ralix.* Tips awned. Bloſſoms egg-ſhaped. Shaft incloſed within the bloſſom. Leaves in fours, fringed. Flowers in heads.—

Curt. i. 12.—*Fl. dan.* 81.—*(Ger. em.* 1381. 4, *not the plant, the flowers of each head not riſing from the ſame point.)*

Flowers incorporated. *Bloſſom* longer than the empalement. *Leaves* expanding. *Bloſſoms* twice a year. LINN.—*Flowers* in a kind of rundle, pale purple, or fleſh-coloured, and ſometimes white. RAY. ST.—*Branches* a little woolly. *Leaves* rolled back at the edges, white underneath; hairs glandular. *Empal.* leaves 4 to 6, fringed with long hairs, tipt with browniſh red globules. *Bloſs.* ſegments reflected, very ſhallow. *Tips* purple, with 2 white horns at the baſe. *Seed-bud* woolly, glandular at the baſe. WITH. ST.—*Leaves* ſometimes in fives, leaf-ſtalks preſſed cloſe to the ſtem. *Rundles* terminating, without a fence. *Flowers* ſet cloſe, pointing one way, inclining. *Fruit-ſtalks* downy, about the length of the bloſſoms. *Floral-leaves* 3 at the baſe of each flower on the upper ſide, of the

ſame

ſame ſhape as the leaves of the empalement, the lowermoſt the largeſt, inſerted about a line below the empalement; the 2 others, one on each ſide, riſing from the baſe of the empalement. *Empal. leaves* oblong-ſtrap-ſhaped, three times ſhorter than the bloſſom, woolly. ST.

Moiſt heaths. [Norfolk. Mr. WOODW.—Hartlebury Common, Worceſterſh. Mr. BALLARD.—Worceſterſh. and Staffordſh. ST.]

Goats eat it. LINN.—A Horſe refuſed it. ST.

ERI'CA *cine'rea*. Tips creſted. Bloſſoms egg-ſhaped. Shaft moſtly projecting. Leaves in threes. Summit knobbed.— *fine-leaved*

Curt. ii. 13.—*Fl. dan.* 38.—*Walc.*—*Cluſ.* i. 43. 2, *repr. in Lob. obſ.* 620. 1, *Ger. em.* 1382. 7, *and cop. in Park.* 1483. 8, *and Ger.* 1198. 7.

Bloſſom bluiſh. LINN.—*Leaves* when young with 3 flat ſides, when full grown nearly flat. *Bloſs.* clefts very ſhallow. *Tips* double, with 2 horns at the baſe. *Seed-bud* egg-ſhaped, ribbed. *Shaft* crimſon. WITH.—*Leaves* ſtrap-ſhaped, with a longitudinal furrow underneath, furrow white with a microſcopical woollineſs, edge ſomewhat membranaceous and microſcopically ſerrulated; upper ſurface towards the end beſet with a few ſcattered hair-like points. *Trunk*, the lower part free from hairineſs, the bark of the laſt year's ſhoot aſh-coloured, covered with a ſhort woollineſs, light brown. *Branches* moſtly in threes. *Flowers* rattling when ſtruck, from the ſides of the young ſhoots; thoſe from the end of the ſhoots near each other but ſcattered, bare; thoſe from the ſmall lateral branches generally in pairs. *Fruit-ſtalks* ſhorter than the flowers, purpliſh brown, ſomewhat downy, the lower nodding, the upper upright, expanding, with a floral-leaf about the middle. *Floral-leaves* egg-ſhaped, purpliſh, one lying cloſe to the fruit-ſtalk, and 3, and ſometimes 2 at the baſe of each flower, the largeſt half as long as the empalement. *Empal. leaves* dark purple, edges membranaceous, white, ſerrulated, with a furrow along the upper half. *Bloſſom* 3 times as long as the empalement, bluiſh purple, ſhrivelling, turning of a fawn-colour. *Threads* awl-ſhaped, aſcending, doubled to and fro towards the point, white. *Tips* blackiſh purple; *horns* crimſon, half-egg-ſhaped, the outer edge toothed, as ſhort again as the tips; *apertures* oval oblique, extending nearly half way down the ſide. *Seed-bud* roundiſh, ſmooth. *Shaft* inclining to one ſide. ST.—*Stems* woody. *Leaves* fleſhy.

Dry heaths and groves. [Heaths near Yarmouth. Mr. WOODW. —In Staffordſhire and north of Worceſterſhire. ST.]

S. June.—Auguſt.

** *Tips*

their cottages, with alternate layers of heath, and a kind of mortar made of black earth and ſtraw, the woody roots of the heath being placed in the center, the tops externally and internally. They make their beds of it, by placing the roots downwards, and the tops only being uppermoſt, they are ſufficiently ſoft to ſleep upon. Cabbins are thatched with it.——In the iſland of Ilay, ale is frequently made by brewing one part malt, and 2 parts of the young tops of heath; ſometimes they add hops. Boethius relates, that this liquor was much uſed by the Picts. *Penn. tour.* 1772. *p.* 229.—Woollen cloth boiled in alum water, and afterwards in a ſtrong decoction of the tops of heath, comes out a fine orange colour. The ſtalks and tops will tan leather. In England beſoms are made of it, and faggots to burn in ovens, or to fill up drains that are to be covered over. Sheep and Goats will ſometimes eat the tender ſhoots, but they are not fond of them.—Cattle not accuſtomed to browſe on heath, give bloody milk, but are ſoon cured by drinking plentifully of water. *Penn. tour.* 1772. *p.* 229. Horſes ſometimes refuſe it. ST.—Bees extract a great deal of honey from the flowers; and, where heath abounds, the honey has a reddiſh caſt.

downy-leaved β. LINN.—Leaves and branches covered with white downy hairs. WITH.

Erica vulgaris hirſuta. Gerard. 1380. *Ray's ſyn.* 471.—*Erica myricæ folio hirſuto. Bauh. pin.* 485.—*Erica vulgaris hirſutior. Park.* 1480. (WITH.)

[Enville Common, Staffordſh. ST.—Birmingh. Heath. WITH.]

whiteflower'd 3. Bloſſoms white. ST.

croſs-leaved ERI'CA *Tet'ralix.* Tips awned. Bloſſoms egg-ſhaped. Shaft incloſed within the bloſſom. Leaves in fours, fringed. Flowers in heads.—

Curt. i. 12.—*Fl. dan.* 81.—*(Ger. em.* 1381. 4, *not the plant, the flowers of each head not riſing from the ſame point.)*

Flowers incorporated. *Bloſſom* longer than the empalement. *Leaves* expanding. *Bloſſoms* twice a year. LINN.—*Flowers* in a kind of rundle, pale purple, or fleſh-coloured, and ſometimes white. RAY. ST.—*Branches* a little woolly. *Leaves* rolled back at the edges, white underneath; hairs glandular. *Empal.* leaves 4 to 6, fringed with long hairs, tipt with browniſh red globules. *Bloſs.* ſegments reflected, very ſhallow. *Tips* purple, with 2 white horns at the baſe. *Seed-bud* woolly, glandular at the baſe. WITH. ST.—*Leaves* ſometimes in fives, leaf-ſtalks preſſed cloſe to the ſtem. *Rundles* terminating, without a fence. *Flowers* ſet cloſe, pointing one way, inclining. *Fruit-ſtalks* downy, about the length of the bloſſoms. *Floral-leaves* 3 at the baſe of each flower on the upper ſide, of the

ſame

ſame ſhape as the leaves of the empalement, the lowermoſt the largeſt, inſerted about a line below the empalement; the 2 others, one on each ſide, riſing from the baſe of the empalement. *Empal. leaves* oblong-ſtrap-ſhaped, three times ſhorter than the bloſſom, woolly. ST.

Moiſt heaths. [Norfolk. Mr. WOODW.—Hartlebury Common, Worceſterſh. Mr. BALLARD.—Worceſterſh. and Staffordſh. ST.]

Goats eat it. LINN.—A Horſe refuſed it. ST.

ERI'CA *cine'rea*. Tips creſted. Bloſſoms egg-ſhaped. Shaft moſtly projecting. Leaves in threes. Summit knobbed.— *fine-leaved*

Curt. ii. 13.—*Fl. dan.* 38.—*Walc.*—*Cluſ.* i. 43. 2, *repr. in Lob. obſ.* 620. 1, *Ger. em.* 1382. 7, *and cop. in Park.* 1483. 8, *and Ger.* 1198. 7.

Bloſſom bluiſh. LINN.—*Leaves* when young with 3 flat ſides, when full grown nearly flat. *Bloſs.* clefts very ſhallow. *Tips* double, with 2 horns at the baſe. *Seed-bud* egg-ſhaped, ribbed. *Shaft* crimſon. WITH.—*Leaves* ſtrap-ſhaped, with a longitudinal furrow underneath, furrow white with a microſcopical woollineſs, edge ſomewhat membranaceous and microſcopically ſerrulated; upper ſurface towards the end beſet with a few ſcattered hair-like points. *Trunk*, the lower part free from hairineſs, the bark of the laſt year's ſhoot aſh-coloured, covered with a ſhort woollineſs, light brown. *Branches* moſtly in threes. *Flowers* rattling when ſtruck, from the ſides of the young ſhoots; thoſe from the end of the ſhoots near each other but ſcattered, bare; thoſe from the ſmall lateral branches generally in pairs. *Fruit-ſtalks* ſhorter than the flowers, purpliſh brown, ſomewhat downy, the lower nodding, the upper upright, expanding, with a floral-leaf about the middle. *Floral-leaves* egg-ſhaped, purpliſh, one lying cloſe to the fruit-ſtalk, and 3, and ſometimes 2 at the baſe of each flower, the largeſt half as long as the empalement. *Empal. leaves* dark purple, edges membranaceous, white, ſerrulated, with a furrow along the upper half. *Bloſſom* 3 times as long as the empalement, bluiſh purple, ſhrivelling, turning of a fawn-colour. *Threads* awl-ſhaped, aſcending, doubled to and fro towards the point, white. *Tips* blackiſh purple; *horns* crimſon, half-egg-ſhaped, the outer edge toothed, as ſhort again as the tips; *apertures* oval oblique, extending nearly half way down the ſide. *Seed-bud* roundiſh, ſmooth. *Shaft* inclining to one ſide. ST.—*Stems* woody. *Leaves* fleſhy.

Dry heaths and groves. [Heaths near Yarmouth. Mr. WOODW.—In Staffordſhire and north of Worceſterſhire. ST.]

S. June.—Auguſt.

** *Tips*

** *Tips without awns, projecting. Leaves in fours, or more.*

double-tipped ERI'CA *didy'ma.* Tips without awns, double, projecting. Threads hair-like. Bloſſoms bell-ſhaped. Shaft projecting. Leaves in fives. Fruit-ſtalks ſcattered, ſeveral times longer than the flowers. St.*

There is no figure of it, but my friend, Mr. Curtis, will, I flatter myſelf, ſupply this deficiency, as ſoon as he ſhall have extended his Flora to the ſhores of Cornwall.—(Garid. 32, is an excellent figure of the E. multiflora, J. B. i. 6. 356, a tolerable one, and Matth. 153, cop. in Dalech. and Tabern. agrees more exactly, at leaſt with the multiflora, than with any other of the ſpecies I have hitherto ſeen.)

Stems twiſted, trailing. *Bark* of the more ſlender ſhoots aſh-coloured, of the greater reddiſh brown. *Leaves* longiſh, narrow, ſomewhat like thoſe of fir, pointed, but not ſharp, green above, whitiſh underneath, edge bent in, crowded ſo cloſe as to conceal the bark of the younger ſhoots. *Flowers* on longiſh and ſlender fruit-ſtalks, ſhortiſh, generally of a pale fleſh-colour approaching to white, but ſometimes with a deep tinge of purple. *Tips* blackiſh purple. *Seed* reddiſh brown. Ray. Mr. Woodward- St.—*Fruit-ſtalks* with 2 floral-leaves not exactly oppoſite, a little above the baſe. Mr. Woodward.—*Tips* ſo much divided as to appear like 2 to each thread. *Bot. Arr. ed.* i.†—*Branches* between ſcored and angular, light reddiſh brown, all of them lateral, to 7 or more riſing from the ſame point in the manner of a rundle, in ſome ſtates of its growth giving it much of the appearance of the *Euphorbia Cyparifſias;* when beginning to flower gradually tapering towards the end. *Leaves* ſtrap-ſhaped, bowed ſideways, ſmooth, not gloſſy, ſomewhat pointed, microſcopically ſerrated at the edge with diſtant ſerratures, upper ſurface ſlightly elevated in the middle, underneath convex with a ſmooth furrow running along it, longer, and ſometimes thrice as long as the bloſſom. *Leaf-ſtalks* ſhorter and narrower than the breadth of the leaf, flat, generally ſmooth, but ſometimes ſlightly downy, preſſed to the branch. *Flowers* roundiſh, on long fruit-ſtalks from the ſides of the branches, beginning from below the middle, and extending to the ends of the branches, continuing on, at leaſt in the cultivated plants, till the next

* Antheris muticis didymis exſertis; filamentis capillaribus, corollis campanulatis, ſtylo exſerto, foliis quinis, pedunculis ſparſis flore longioribus. St.

† Antheræ didymæ, vel potius duæ in ſingulo filamento. Letter from Professor Pott, of Brunſwick, Feb. 28, 1783. With this excellent botaniſt I had firſt the ſatisfaction of critically examining this ſpecies. St.

next ſeaſon. *Fruit-ſtalks* ſlender, hair-like, from the baſe of the leaves, nearly upright, and as long as the leaves, incorporated, 3 or 4 riſing from a kind of ſcaly bud, compoſed of ſpear-egg-ſhaped yelloviſh ſcales fringed at the edge. *Flower-ſcales* ſpear-egg-ſhaped, fringed, 3 to each fruit-ſtalk, 2 a little below the middle of the fruit-ſtalk, oppoſite, the 3d a little below. *Empalement* without flower-ſcales at the baſe as in the other Britiſh ſpecies; *leaves* egg-ſhaped, hollow, the edges bending inwards, microſcopically fringed, or rather of 1 leaf, divided to the baſe into 4 ſegments. *Bloſſom* truly bell-ſhaped, pointed at the baſe, cloven nearly half way down, ſegments broad, ſoon coming to a point, bluntiſh, open. *Threads* hair-like, 1 or 2, perhaps, ſomewhat flatted, white, as long as the bloſſom. *Tips* juſt projecting beyond the bloſſom, 2 to each thread, expanding, egg-ſhaped, blunt, blackiſh brown, orifice oval on the outer ſide extending nearly half way down. *Seed-bud* roundiſh, ſmooth, with 4 deep furrows. *Shaft* as thick again as the threads. *Summit* juſt thicker than the ſhaft, the end flat. ST.

Erica foliis Corios multiflora. R. ſyn. 471. *n.* 5.—(*E. multiflora of Linnæus*, according to HUDS. but, an examination of ſpecimens, firſt in the herbarium of PROFESSOR POTT, from M. Dick, of Switzerland, and afterwards in that of SIR JOSEPH BANKS, from Meſſieurs Gerard, Yalden, and Jacquin, and the garden at Trianon, convinced me, that our plant is neither the *multiflora*, nor any other of the Linnæan ſpecies. In the *multiflora* the "bloſ-"ſoms are cylindrical, and the leaves blunt," as Linnæus deſcribes them. *Leaves* ſtraight, gloſſy, about the length of the flowers. *Tips* oblong, divided into 2 ſegments; ſegments cloſe to each other as in the generality of Ericas. *Bloſs.* cloven ¼th of the way down, downy within at the baſe. *Threads* flat, of the ſame breadth with the ſhaft.—*E. Coris folio altera, n.* 2. *Cluſ.* i. *p.* 42, from his deſcription of "the flowers crowded at the extremi-"ties of the branches," ſhould ſeem to be *E. multiflora.*—*E. foliis Corios multiflora, J. B.* i. 6. 356, from "the extremities of the "branches abounding with flowers ſet cloſe and projecting beyond the leaves," ſhould ſeem alſo to be *E. multiflora.*—*E. juniperifolia denſe fruticans Narbonenſis, Lob. obſ.* 620, is more doubtful, but he refers to the figure of Matth. and the ſpecies which grows in the ſouth of France, as appears from the ſpecimen from M. Gerard, is the true *multiflora.* ST.

Heaths. Goon Hilly Downs, going from Helſton to the Lizard Point, Cornwall. RAY. [Dr. POULTNEY.] P. June.—Aug.

The *Papilio Maturna* is found on the different ſpecies.

Iriſh ERI'CA *Dabœ'cia*. Tips without horns. Tips and ſhaft within the bloſſom. Bloſſom egg-ſhaped. Leaves alternate, ſpear-ſhaped, rolled in at the edge. Flowers in bunches, pointing one way. HUDS.—*See* Andromeda Dabœcia.

526. DAPH'NE. Mezereon.

EMPAL. *Cup* none.
BLOSS. 1 *petal*; funnel-ſhaped; ſhrivelling. *Tube* cylindrical; cloſed at the baſe; longer than the border. *Border* with 4 cleſts; *ſegments* egg-ſhaped; ſharp; flat; expanding.
CHIVES. *Threads* 8; ſhort; inſerted into the tube; 4 of them alternately lower than the other 4. *Tips* upright; roundiſh; with 2 cells.
POINT. *Seed-bud* egg-ſhaped. *Shaft* very ſhort. *Summit* knobbed; flat; but ſomewhat depreſſed.
S. VESS. *Berry* of 1 cell; roundiſh.
SEED ſingle; nearly globular; fleſhy.
ESS. CHAR. *Empal.* 0. *Bloſſom* 4 *cleſts, of the true texture of a bloſs. ſhrivelling, incloſing the chives. Berry of* 1 *ſeed.*

common DAPH'NE *Meze'reum*. Flowers ſitting, in threes, growing on the ſtem. Leaves ſpear-ſhaped, deciduous.—*Fl. dan.* 268, *flowers the beſt.*—*Sheldr.* 62.—*Ludw.* 63, *and Blackw.* 582, *foliage the beſt.*—*Fuchſ.* 227, *cop. in J. B.* i. 566.—*Dod.* 364. 2, *repr. in Lob. obſ.* 199. 4, *Ger. em.* 1402. 2, *and cop. in Park.* 202. 3, *in fruit.*

The *terminating buds* produce leaves; the *lateral buds* flowers; which open very early in the ſpring, often in the winter; and are ſo thick ſet as to make the branches appear of a beautiful red. LINN.—*Flowers* alſo in twos and fours. REICH.—*Bloſs.* ſometimes pale red, and white. ST.

Mezereon. Spurge Olive. Spurge Flax. Dwarf Bay.

Woods near Andover, [and Laxfield, Suffolk. Mr. WOODW.] S. Feb. March.

An ointment prepared from the bark, or the berries, has been ſucceſsfully applied to ill-conditioned ulcers. The whole plant is very corroſive; 6 of the berries will kill a wolf. A woman gave 12 grains of the berries to her daughter, who had a quartan ague; ſhe vomited blood, and died immediately. A decoction made of 2 drams of the cortical part of the root, boiled in 3 pints of water till

till 1 pint is waſted; and this quantity, drank daily, is found very efficacious in reſolving venereal nodes, and other indurations of the perioſteum. See Dr. Ruſſel's paper in the *Med. obſ.* iii. *p.* 189. —The conſiderable and long continued heat and irritation that it produces in the throat, when chewed, made me firſt think of giving it in a caſe of difficulty in ſwallowing, ſeemingly occaſioned by a paralytic affection. The patient was directed to chew a thin ſlice of the root as often as ſhe could bear to do it; and, in about 2 months, ſhe recovered her power of ſwallowing. This woman bore the diſagreeable irritation, and the ulcerations its acrimony occaſioned in her mouth, with great reſolution; but ſhe was reduced to ſkin and bone, and for 3 years before had ſuffered extremely from hunger, without being able to ſatisfy her appetite; for ſhe ſwallowed liquids very imperfectly, and ſolids not at all. The complaint came on after lying-in. WITH.

It is eaten by Sheep and Goats. Cows and Horſes refuſe it.

DAPH'NE *Laure'ola.* Bunches of 5 flowers from the boſom of the leaves. Leaves ſpear-ſhaped, ſmooth. LINN. —*Flowers 4 to 7 in a bunch.* Mr. HOLLEFEAR. *Laurel*

Walc.—Blackw. 62.—*Lob. obſ.* 200. 1, *repr. in Ger.* 1404. 1; *and cop. in Park.* 205. 1, *and Ger.* 1219. 1, *in bloſſom.—Dod.* 365, *repr. in Lob. obſ.* 200. 2, *&c. in fruit.—J. B.* i. 564.—*(Matth.* 1217 *and* 1218, *different ſpecies.)*

Bunches from the ſides of the ſtem, nodding. *Floral-leaves* concave, alternate, without any flowers from their baſe. *Flowers* terminating the bunch. *Bunches* cluſtered into a rundlet. *Flowers* ſad in colour, ungrateful in ſcent, and bloſſoming in a gloomy ſeaſon. *Bloſs.* yelloviſh green. LINN.

Spurge Laurel.

Woods and hedges. S. March. April.

Very happy effects have been experienced from this plant in rheumatic fevers. It operates as a briſk and rather ſevere purgative. It is an efficacious medicine in worm caſes; and upon many accounts deſerves to be better known to phyſicians; but, in leſs ſkilful hands, it would be dangerous, as it is poſſeſſed of conſiderable acrimony. The whole plant has the ſame qualities, but the bark of the root is the ſtrongeſt. Dr. Alſton fixes the outſide doſe at 10 grains.

Order II.

DIGYNIA; II. POINTALS.

607. CHRYSOSPLE'NIUM. Sengreen.

EMPAL. *Cup* with 4 or 5 diviſions; expanded; coloured; permanent. *Segments* egg-ſhaped; the oppoſite ones narroweſt.

BLOSS. none, unleſs you call the cup ſo becauſe it is coloured.

CHIVES. *Threads* 8 or 10; awl-ſhaped; upright; very ſhort; ſtanding upon the angular receptacle. *Tips* ſimple.

POINT. *Seed-bud* beneath; terminated by 2 awl-ſhaped *Shafts* as long as the chives. *Summits* blunt.

S. VESS. *Capſule* with 2 bills, divided into 2, with 1 cell, and 2 valves; encompaſſed by the cup which becomes green.

SEEDS many; very ſmall.

ESS. CHAR. *Empalement with 4 or 5 clefts; coloured. Bloſs.* 0. *Capſule with 2 beaks, 1 cell, many ſeeds.*

OBS. The terminating flower has 5 clefts; the reſt, which open later, 4. Has a very cloſe affinity to Saxifraga, but by no principle of arrangement can I combine them into one genus. LINN. gen. pl. ed. ii.—Its other Britiſh congener is *Adoxa* in the diviſion ♂ of the order *Succulentæ*. ST

alternate leaved

CHRYSOSPLE'NIUM *alternifo'lium*. Leaves alternate.—

Fl. dan. 366.—*Walc.*—*Pet.* 6. 10.—*H. ox.* xii. 8. 8.—*J. B.* iii. 707. 1.

Chives in the terminating flower 10, in the reſt 8. LINN.—*Chives* of the terminating flower very ſeldom 10. ESCHENBACK. *obſ. bot.*—The terminating *flower* generally with 4 clefts, and 8 chives. LEERS.—The terminating *flower* with us has always 4 clefts, and 8 chives. MŒNCH.—*Root* throwing off off-ſets, but no creeping ſuckers. So much larger in all reſpects than the *C. oppoſitifolium*, that, where they grow intermixed, by this circumſtance alone they may be diſtinguiſhed at ſome diſtance. *Leaves* deeply notched.

Root-

Root-leaves 2 or 3, on long hairy leaf-ſtalks, kidney-ſhaped, bluntly notched. *Stem-leaves* ſimilar to thoſe of the *E. oppoſitifolium*, 2 or 3, on leaf-ſtalks decreaſing in length as they approach the ſummit; the upper ſmooth. *Stem* 3-cornered, with imperfect angles, hairy below, ſmooth upwards, near the ſummit forked; the forks bare of leaves. *Branches*, 1 or 2 very ſhort ones, juſt above the root-leaves, with alternate leaves ſimilar to thoſe of the root; *ſubdiviſions* of the upper not ſo regularly forked as in the *C. oppoſitifolium*. *Flowers* ſolitary, and in rundles; the ſolitary ones on a ſhort fruit-ſtalk on one of the branches a little above the forks; thoſe in rundles with a leaf at their baſe. *Chives* in all the terminating ones I examined, which were a great number, as well as in the lateral ones, 8, 4 of them from the baſe of the ſegments, the other 4 from the fiſſures. *Capſule* burſting into 2 parts. *Seeds* roundiſh, ſhining, not readily ſhaking out, browniſh. Mr. Woodw.—With the *C. oppoſitifolium*, but leſs frequent

Near Bingley, Yorkſhire. [About Eſholt, on the river Air, 8 miles above Leeds, plentifully. Mr. Wood.—Boggy grove on Porland Heath, near Norwich. Mr. Woodw.—Purlieu Lane, leading from the Wytch to Mathon, Worceſterſh. Mr. Ballard.]

P. March. April.

CHRYSOSPLE'NIUM *oppoſitifo'lium*. Leaves *oppoſiteleaved* oppoſite.—

Curt. ii. 23.—*Fl. dan.* 365.—*Dod.* 316. 2, *repr. in Lob. obſ.* 336. 1, *Ger. em.* 841. 2, *and cop. in Park.* 425. 2, *H. ox.* xii. 8. 7, *and Pet.* 6. 9.

Very cloſely allied to the *C. alternifolium*. Linn.—With us all the *flowers* with 4 clefts, and 8 chives. Leers. St. 1775. Mr. Woodward.—*Empalement* ſometimes, though rarely, with 5 diviſions. *Chives* in the terminating flower ſometimes 10, proceeding from beneath the receptacle or rather honey-cup. Curt.—*Stem* upright, with 2 or 3 pair of leaves, roundiſh, with 2 oppoſite furrows, near the top forked; *forks* without leaves. *Branches* dividing again into forks with a leaf and a ſingle flower at each diviſion, from which alſo ariſe ſmall leafy rundles of ſitting flowers. *Suckers* from the baſe of the ſtem, covered with leaves, creeping. *Leaves* all alike, circular, with the baſe lopped on each ſide, indiſtinctly and irregularly notched, with a few hairs on the upper ſurface; the under ſmooth. *Root-leaves* ſeveral, on ſhort hairy leaf-ſtalks. Mr. Woodw.—*Stems* 4-cornered. *Leaves* roundiſh, notched; the lower ones ſet with glandular briſtles on the upper ſurface. *Chives* ſometimes only 6 or 7. With.—*Leaves* on ſhort leaf-ſtalks. *Flowers* bright yellow.

Golden Saxifrage.

Moiſt ſhady places, ſides of boggy rivulets. [Copſe on Poling-land Heath, near Norwich. Mr. PITCHFORD.] P. Apr. May.

Order III.

TRIGYNIA; III. POINTALS.

537. POLYG'ONUM. Snakeweed.

EMPAL. *Cup* turban-ſhaped; with 5 diviſions; coloured within; *ſegments* egg-ſhaped; blunt; permanent.
BLOSS. none, unleſs you call the cup the bloſſom.
CHIVES. *Threads* generally 8; awl-ſhaped; very ſhort. *Tips* roundiſh; fixed ſideways.
POINT. *Seed-bud* 3-cornered. *Shafts* generally 3; thread-ſhaped; very ſhort. *Summits* ſimple.
S. VESS. none. The *Cup* laps round the ſeed.
SEED ſingle; 3-cornered; ſharp.

ESS. CHAR. *Empal.* 0. *Bloſs.* 5 *diviſions; of the texture of an empalement. Seed* 1; *angular.*

OBS. In ſome ſpecies there are 6 or 7 chives, and in others 5. In ſome the pointal is cloven.

* The Biſtorts. *Spike ſingle.*

Biſtort POLYG'ONUM *Biſtor'ta.* Stem quite ſimple, with a ſingle ſpike. Leaves egg-ſhaped, running down into leaf-ſtalks.—

Ludw. 31.—*Curt.* i. 2.—*Blackw.* 254.—*Mill.* 66.—*Fl. dan.* 421.—*Sheldr.* 111.—*Cluſ.* ii. 69. 1, *repr. in Dod.* 333, *Lob. obſ.* 156. 3, *Ger. em.* 399. 1, *and ill cop. in H. ox.* v. 28. *row* 3. 2.—*Matth.* 946.—*Park.* 392. 1.—*Fuchſ.* 773, *cop. in Trag.* 321, *J. B.* iii. 539. 1, *and Lonic.* i. 202. 3.—*Fuchſ.* 774, *cop. in J. B.* iii. 538.—*Ger.* 322. 1 *and* 3.

Upper-leaves ariſing from long ſheaths incloſing the ſtem. Mr. WOODWARD.—Sheaths of the leaf-ſtalks ſometimes riſing above the inſertion of the leaf-ſtalks to half the length of the leaves. ST. *Root-leaves* extended down the leaf-ſtalks. *Stem-leaves* ſheathing the ſtem. *Flowers* in a ſpike. *Common empalement* of 2 valves, each containing 2 flowers; *valves* ſkinny, the one large, lopped, the other

other ſmaller, and terminated by a ſkinny awn. *Flowers*, 2 within each common empal. one of them on a fruit-ſtalk, the other ſitting ſurrounded with a kind of proper cup, thin, ſkinny, nearly cylindrical; mouth even and very entire. *Bloſſom* with 5 diviſions, pale red. *Tips* double, the 2 parts being only united by the threads. *Seed-bud* purple. *Receptacle* glandular, formed by an expanſion of the bottom of the threads. WITH.

Greater Biſtort. Snakeweed.

Moiſt meadows in the northern counties. Biſhop's Wood, near Hampſtead, and Batterſea. [Brome, Norfolk. Mr. WOODW. —Ham Green, near Mathon, and Martley, Worceſterſh. Mr. BALLARD.—Near Derby. Mr. WHATELY.—Near the Infirmary, Stafford. WITH.] P. May. June.

The root is one of the ſtrongeſt vegetable aſtringents. The young ſhoots are eaten in herb pudding in the north of England. ST.

POLYG'ONUM *vivip'arum*. Stem quite ſimple, with a ſingle ſpike. Leaves ſpear-ſhaped.— *viviparous*

Fl. dan. 13.—*Cluſ.* ii. 69. 2, *repr. in Ger. em.* 399. 2, *and cop. in Park.* 392. 4, *Ger.* 322. 2, *and J. B.* iii. 539. 2.—*Pluk.* 151. 2.

Lower flowers of the *ſpike* frequently changed into vegetating bulbs. LINN.——*Stem-leaves* ſtrap-ſhaped, ariſing from a ſheath. *Sheaths* incloſing the ſtem, terminated by a blunt membrane. Mr. WOODWARD.—*Bulbs* darkiſh purple, egg-ſhaped, ſometimes intermixed with the flowers, mealy and white within. ST.—*Bloſſom* whitiſh.

Small Biſtort.

Mountainous paſtures. Croſby Ravenſworth, and other places in Weſtmoreland; near Settle, Yorkſhire, and Scotland. [Edge of Semer Water at Carr-end Wenſley Dale. CURT.] P. June.

The roots dried and ground to powder are nutritious.

Cows, Goats, and Swine eat it. Sheep are not fond of it. Horſes refuſe it.

β. HUDS. Root-leaves roundiſh, and minutely ſerrated. Stem about 4 inches high. RAY.

H. ox. v. 28. 3 *and* 5.—*Park.* 392. 6.

Paſtures on a high rock called y Grib Goch, above the Lake Ffynnon Frech, near Llanberys.

** Arſmarts. *Pointal cloven (or divided.) Chives fewer than* 8.

POLYG'ONUM *amphib'ium*. Chives 5. Shafts cloven. Spikes egg-ſhaped.— *amphibious*

water α. *aquaticum.* LEERS.—Chives ſhorter than the bloſſom. JACQ. LEERS. ST.—Leaves floating, blunt, very ſmooth. LEERS. ST. *Ludw.* 168.—*Pet.* 3. 12. 6.—*Fl. dan.* 282, *leaves too much like variety* β.—*Dod.* 582. 1, *cop. in Park.* 1254. 1. *a. and H. ox.* v. 29. *row.* 2. 1.—*Ger. em.* 821. 2, *cop. in Park.* 1254. 2, *and H. ox.* v. 29. *row.* 1. 2. *f.* 4.—*Ger.* 675. 2.

Leaves of a pleaſant green, oblong-ſpear-ſhaped, gloſſy, ſurrounded at the very edge with a reddiſh line; the younger very minutely ſerrated. *Leaf-ſtalks* from the ſheaths of the ſtem. *Empal.* as in P. Biſtorta, except that the inner cup is cloven into ſegments. *Bloſs.* as in P. Biſtorta. *Threads* 5, in other reſpects as in P. Biſtorta. *Seed-bud* flattiſh. *Shaft* deeply divided. *Summits* 2 knobs. WITH. *Perennial Willow-leaved Arſmart. Narrow-leaved Pondweed.*

Pools, lakes, marſhes, and ditches. P. June. July.

Horſes, Goats, Sheep, and Swine eat it. Cows refuſe it.

land β. *terreſtre.* LEERS.—Chives generally longer than the bloſſom. Stem upright. Leaves ſomewhat pointed, rough. LEERS. ST. *Curt.* iv. 40.—*Pet.* 3. 12. *a.*

Leaves darker green.

In cultivated ground, but very ſeldom flowering, except in ſpots where water has ſettled. [On the ſide of a piece of water the flowering ſtem growing on the land, and other branches from the ſame root floating in the water. ST.] P. Sept.

biting POLYG'ONUM *Hydrop'iper.* Chives 6. Shaft cloven half way down. Leaves ſpear-ſhaped. Leaf-ſcales ſcarcely fringed. LINN.——Leaves waved, not ſpotted. Spikes thread-ſhaped, nodding. *Leaf-ſcales very evidently fringed.* CURT.—Floral-leaves naked.* ST.

Curt. i. 11.—*Blackw.* 119.—*Fuchſ.* 843, *cop. in J. B.* iii. 780.—*Pet.* 3. 5.—*Matth.* 583.—*(Dod.* 607. 2, *repr. in Lob. obſ.* 171. 1, *Ger. em.* 445. 1, *and cop. in Park.* 857. 1, *and abridged in H. ox.* v. 29. 6; *as alſo Ger.* 361. 1, *and Trag.* 90, *from the compactneſs of the ſpikes, as alſo its general habit, appear to me to be P. Perſicaria.)*

The leaf-ſcale ſheaths tight round the ſtem, lopped, ribbed, the ribs terminating in briſtles forming a fringe. *Leaves* very thin, ſmooth on each ſide, edge very entire, but ſerrated, as it were, with briſtles laid to the edge, and ſcarcely perceptible. LINN.—*Leaf-ſcales* bald. *Summits* globular. HALL. ST.—*Floral-leaves* not fringed. MŒNCH. ST.—Though with ſometimes a ſtraggling ſhort hair or 2 on the edge. ST.—*Flowers* at ſome little diſtance from each

* Floribus hexandris ſemidigynis, ſpicis filiformibus nutantibus, bracteis nudis. ST.

each other, 2 or 3 together. *Seeds* faintly 3-cornered. LEERS. ST. —*Leaves* of a yellower hue, and more waved than thoſe of *P. Perſicaria*. *Empal.* ſprinkled with very minute glands. *Seeds* larger and more pointed than thoſe of *P. Perſicaria*. CURT.—*Spikes* nodding even before flowering. Mr. WOODW.—Whole *plant* ſprinkled with minute glandular dots, but even with the ſurface, and more obvious with a moderate than a higher magnifying lens, probably the ſeat of its very acrid property. *Stem*, and all its ſubdiviſions, quite ſmooth, ſwoln above the knots, knots red. *Leaf-ſcales* tinged with red, ribs ſcarce ſenſibly prominent. *Flowers* green, red towards the end. ST.—*Bloſſoms* purple, or white.

Water Pepper. Arſmart. Lakeweed.

Watery places, on the ſides of rivulets, lakes, and ditches.

A. July.—Sept.

The whole plant has an acrid, burning taſte. It cures little aphthous ulcers in the mouth. It dyes wool yellow. The aſhes of this plant, mixed with ſoft ſoap, is a noſtrum, in a few hands, for diſſolving the ſtone in the bladder; but it may be reaſonably queſtioned whether it has any advantage over other ſemi-cauſtic preparations of the vegetable Alcali. Its acrimony riſes in diſtillation, and the diſtilled water drank to the amount of 2 or 3 half pints daily, has been found very effectual in ſome nephritic caſes. WITH.

Horſes, Cows, Goats, Sheep, and Swine refuſe it. LINN.

β. HUDS. *Polygonum minus*, which ſee.

POLYG'ONUM *mi'nus*. Chives 6. Shafts 2. *creeping* Leaves ſpear-ſhaped. Leaf-ſcales fringed. Stem with wide ſpreading branches. HUDS. *ed.* i.——Shaft ſlightly cloven. Leaves ſtrap-ſpear-ſhaped. Stem creeping at the baſe. CURT.——Spikes interrupted, very thinly ſet. GMEL. ST.—Spikes thread-like.* *Chives ſometimes* 5 *and* 7. ST.

Curt. i. 11.—*Lob. obſ.* 171. 2, *repr. in Ger. em.* 446. 3, *cop. in Park.* 857. 4, *H. ox.* v. 29. *row* 3. 5. *f.* 1, *and Pet.* 3. 6.

Shaft undivided. *Summits* 2 or 3. *Seeds* ſmaller than in the other ſpecies, more triangular, black, gloſſy. In moſt other reſpects accords with *P. Hydropiper*. GMEL.—*Stems* ſeveral, 9 inches to a foot high. *Leaves* almoſt veinleſs. *Spikes* ſlightly nodding. *Shaft* ſometimes ſlightly cloven into 3. CURT.—*Leaves* not acrid. ST.

Perſicaria anguſtifolia. C. B. pr. 43.—*ex ſingulis geniculis florens. R. ſyn.* 145. (CURT. ST.)—*P. Perſicaria* β and γ. Linnæus. ST.

* Spicis filiformibus interruptis. ST.

Moiſt

Moiſt and watery meadows. [Tothill Fields, Weſtminſter. Huds. Curt.—Gravel pit on Malvern Chace with P. Hydropiper. St.] A. Sept.

ſpotted POLYG'ONUM *Perſica'ria*. Chives 6. Shafts 2.* Spikes egg-oblong. Leaves ſpear-ſhaped. Leaf-ſcales fringed. Linn.—Shafts cloven half way down. Fruit-ſtalks ſmooth. Spikes upright. Curt.——Floral-leaves fringed.‡ *Fruit-ſtalks ſometimes beſet with hairs.* St.

Fl. dan. 702.—*Walc.*—*Curt.* i. 5.—*Pet.* 3. 7.—*Blackw.* 118.—*Dod.* 607. 2, *repr. in Lob. obſ.* 171. 1, *Ger. em.* 445. 1, *and cop. in Park.* 857. 1.—*Ger.* 361. 1.—*Trag.* 90.—*Fuchſ.* 630, *cop. in Trag.* 91, *J. B.* iii. 779. 2, *and Lonic.* i. 162. 1, *from the breadth of the leaves, and Ger.* 361. 2, *from the thickneſs of the ſpikes appears to be P. penſylvanicum, and Dod.* 608, *repr. in Ger. em.* 445. 2, *and cop. in Park.* 857. 2, *and H. ox.* v. 29. *row* 2. 2, *from the breadth of the leaves ſeems rather the P. penſylvanicum with ſpotted leaves.—Matth.* 584, *ſeems to be P. orientale.)*

I muſt confeſs there are not always 2 *ſhafts*, having often found them united below. Gmel.—*Stem* ſometimes creeping at the bottom. *Leaves*, edge and mid-rib ſlightly hairy, moſtly marked with a blackiſh ſpot ſomewhat like a horſe ſhoe. *Flowers* of a bright roſe-colour. *Seed-bud* oval and flatted, or 3-ſquare. *Shaft* often cloven half way down into 3 parts, and, when this is the caſe, the ſeed-bud and ſeed are 3-ſquare. *Seed* egg-ſhaped, and ſlightly convex on one ſide, or 3-ſquare. Curt.—*Shaft* cloven half way down. Mr. Hollefear. St.—*Stem* ſometimes ſmooth, ſometimes beſet above with hairs, in general lying cloſe to the ſtem; above each knot ſwoln and hunched on the under ſide, giving each joint the appearance of the thigh of a fowl, dotted here and there with red. *Leaves* ſometimes dotted underneath with minute green dots, and ſometimes beſet above with whitiſh dots. *Leaf-ſcales* hairy, with prominent ribs, the lower ones burſting from the ſwelling of the knots. *Fruit-ſtalks* ſometimes ſprinkled with a few glands. *Seed*

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* I know no ſpecies which has 2 *ſhafts*, and, at the ſame time, ſuch *leaf-ſcales* as Linnæus would deſcribe as *fringed*, when he calls thoſe of the *P. Hydropiper* "*ſubmuticis.*" The *P. penſylvanicum with a ſpotted ſtalk*, of Mr. Curtis, ſo much reſembles this, that I am inclined to believe that Linnæus formed the above character with ſpecimens of both before him, and ſuppoſing them to be one and the ſame ſpecies, neglected to examine microſcopically the ſhafts of the *true P. Perſicaria*. St.

‡ Floribus hexandris ſemidigynis, ſpicis oblongis erectis, ſtipulis bracteisque ciliatis. St.

Seed ſometimes 3-cornered even when the ſhaft is cloven only into 2. *Floral-leaves* hairy, ribbed, hairs of the fringe nearly half as long as the leaf. *Shaft*, arms ſtraight, expanding. *Spikes* ſometimes white tinged with pink. St.——*Stem* nearly cylindrical, thickeſt at the joints, more or leſs tinged with red. *Leaves* nearly ſmooth, but with very minute briſtles lying along the edge. *Leaf-ſcales* ſheathing, ribbed. *Common fruit-ſtalks* ſpringing from the ſheathing leaf-ſcales at the joints of the ſtem. *Flowers* 3 or 4 together, included in a membranaceous fringed ſheath, on ſhort fruit-ſtalks of different lengths, which are again incloſed by ſkinny ſheaths. *Bloſs.* ſegments concave, unequal. *Chives* ſometimes 5 and 7. *Tips* ſometimes 2 upon one thread. *Shaft* cloven nearly half way down. *Summits* globular. With.

Dead ar Spotted Arſmart.

Ditches, on the ſide of water, and not unfrequently in corn-fields. A. July.—Sept.

Its taſte is ſlightly acid and aſtringent. Woollen cloth dipped in a ſolution of alum obtains a yellow colour from this plant.

Goats, Sheep, and Horſes eat it. Cows and Swine refuſe it. Linn.

β. Huds. *Polygonum minus.* Curt. which ſee.

γ. Huds. *Polygonum penſylvanicum.* Curt. var. 4, which ſee.

δ. Huds. *Polygonum penſylvanicum, (petecticale)* which ſee.

ε. Huds. Leaves like thoſe of the *Salix alba.* Ray. *Pet.* 3. 9.

ζ. Huds. *Polygonum penſylvanicum.* Curt. which ſee.

η. Huds. Stems ſpotted.

Polygonum penſylvanicum, (petecticale) which ſee.

POLYG'ONUM *penſylvan'icum.* Chives 6. Shaft divided almoſt to the baſe.* Leaf-ſcales not fringed. Fruit-ſtalks rough. Seeds with a depreſſion on each ſide. Curt.—*Fruit-ſtalks not properly rough, being beſet with glands, not hairs.* St. *pale-flowered*

Curt. i. 12.—*Pet.* 3. 11.—*Fuchſ.* 630, *cop. in Trag.* 91, *J. B.* iii. 779. 2, *and Lonic.* i. 162. 1.—*Dod.* 608, *repr. in Ger. em.* 445. 2, *and cop. in Park.* 857. 2, *and H. ox.* v. 29. *row* 2. 2, *is the variety with ſpotted leaves.*

Stem ſwoln above the knots. *Leaf-ſcales* ſolitary, within the leaves, permanent, ſheathing, growing to, lopped, fringed, but it

* I am inclined to believe that Linnæus's ſpecific character of the *P. Perſicaria* was formed from a microſcopical examination of this plant, and a joint view of this P. penſylvanicum (petecticale) and the true *P. Perſicaria.* St.

it often happens that they break off about the middle and then they appear not fringed. *Chives* from 6 to 8. HUDS.—*Stem* upright, 3 feet high, of the thickneſs of one's finger. *Leaves* of a paliſh green, with a kind of mealineſs, ſometimes ſpotted, ſometimes not. *Spikes* thicker than thoſe of *P. Perſicaria*, heavy, and, in conſequence of their weight, often hanging down. *Seeds* larger than thoſe of *P. Perſicaria*. RAY.—*Stem* cylindrical, ſmooth. *Leaves* egg-ſpear-ſhaped, ſmooth above; the uppermoſt dotted underneath with minute glands, the lowermoſt covered with a kind of down; ſometimes with, and ſometimes without ſpots. *Leaf-ſtalks* hairy underneath, with a ſlight roughneſs to the touch. *Leaf-ſcales* more ſtrongly ribbed than in *P. Perſicaria*. *Fruit-ſtalks* beſet with minute yellowiſh globular glands, on exceedingly ſhort foot-ſtalks. *Spikes* oval, when the ſeeds are ripe drooping. *Flowers* greeniſh, ſet cloſe together. *Seed* flat, with a depreſſion in the middle of each ſide, ſometimes obtuſely triangular. CURT. ST.—*Stem* free from hairs, but towards the top ſprinkled here and there with minute globular glands on exceedingly ſhort pedicles; ſwoln above the joints as in that of *P. Perſicaria*. *Leaves* beſet at the edge with minute hairs as in *P. Hydropiper*, and the mid-rib underneath rough with hairs lying flat. *Leaf-ſcales* with a few ſhort fine hairs ſometimes ſcattered along the edge. *Flowers* pale whitiſh green, whitiſh towards the end. ST.

P. penſylvanicum. HUDS. *ed.* i.—*P. Perſicaria* ζ *ed.* ii.—Not *P. penſylvanicum* of *Linnæus*, which has "8 chives, and fruit-ſtalks rough "with ſtiffiſh briſtles, ſecreting a glutinous liquor from their "points." But not having ſeen a ſpecimen of the American plant, Mr. Curtis's deſignation has been adhered to. Should my opinion be confirmed, our ſpecies may be titled *palleſcens*. ST.

Dunghills, cornfields, and ſometimes on the ſide of water.

A. Auguſt.

red 2. *Stem* and *flowers* red, but not ſo beautifully bright as thoſe of *P. Perſicaria*. Like variety 1 in every other reſpect. CURT.

Dunghills with variety 1, and alſo in cornfields.

flea-bitten 3. *petechicale*. ST.—Stem ſpotted with red. CURT. ST.—Shaft divided ſomewhat more than half way. ST.

Curt. i. 12.

Comes near to a diſtinct ſpecies. *Stem* ſpotted with red. *Spikes* much ſlenderer, even more ſo than thoſe of *P. Perſicaria*, red, but not ſo bright as thoſe of the *Perſicaria*. *Leaf-ſtalks* rough underneath. *Seeds* ſmaller than thoſe of variety 1. In a rich ſoil as large as variety 1, but in other ſituations much ſmaller, and its leaves are generally white underneath. If not attentively examined will be taken for the *P. Perſicaria*. CURT. ST.—*Leaves* with yellowiſh dots.

Leaf-ſcales

Leaf-ſcales blunt, ſmooth, or fringed with very minute hairs. POLLICH. ST.—Mouth downy, hardly to be called fringed. LEERS. ST.—*Spikes* of a dull ruſty red on the ſide oppoſed to the ſun, pale green on that not expoſed to the ſun. *Flowers* when in bloſſom whitiſh green, becoming tinged more or leſs with red as the ſeed-bud advances to maturity. *Stem* like that of *P. Perſicaria*, and *penſylvanicum*, ſpotted with ſmall oblong ſpots reſembling flea-bites or petecti. *Leaves*, the *upper* ſmooth and dotted underneath; the *lower* ſpread over with a thin bluiſh white down, not dotted. *Leaf-ſtalks* of the lower-leaves ſmooth. *Spikes* oblong, and egg-oblong, generally thicker than thoſe of *P. Perſicaria*, and often as thick as variety 1. *Shaft*, arms bowed outwards. *Fruit-ſtalks* while young beſet with glands on very ſhort foot-ſtalks, which, decaying as the ſpikes advance to maturity, leave the fruit-ſtalks rough with prominent points. ST.

P. Perſicaria. POLLICH. LEERS. *η.* *δ.* HUDS.

Ditches about St. George's Fields often with P. Perſicaria, and on the watery parts of Blackheath and Peckham Rye. Dunghills, and in a ditch on Stourbridge Common. ST.] A. Sept.

4. Leaves hoary underneath. CURT. hoary

Pet. 3. 8.

Cornfields, and other ſituations where the ſoil is not very rich.

Sparrows and other ſmall birds are very fond of the ſeeds of all the varieties. CURT. ST.

*** Knotgraſſes. *Leaves undivided. Chives* 8.

POLYG'ONUM *avicula're*. Chives 8. Shafts 3. Flowers from the boſom of the leaves. Leaves ſpear-ſhaped. Stem trailing herbaceous. LINN.—*Chives ſometimes* 7. GMEL. *Knotgraſs*

α. latifolium. RETZ. broad-leaved

Curt. i. 10.—*Fuchſ.* 614, *cop. in J. B.* iii. 375. 1, *and Trag.* 391.—*Blackw.* 315.—*Fl. dan.* 803.—*Matth.* 951, *cop. in Dod.* 113. 1, *repr. in Lob. obſ.* 228. 3, *Ger. em.* 565, *and which cop. in Park.* 443. 1, *H. ox.* v. 29. *row* 3. 1, *and Pet.* 10. 1.—*Ger.* 451.—*Lonic.* i. 168. 3.

Chives 8. *Shafts* ſometimes 2. ST.—*Stem* ſcored, thickeſt at the joints, and ſeparating when pulled. *Leaves*, ſome egg, and ſome ſpear-ſhaped. *Flowers* 2 or 3 together, from the boſom of the leaves. *Fruit-ſtalks* ſhort, but 2 of them longer. *Empalement* double, ſkinny; the *outer* with 5 ſpear-ſhaped ſegments incloſing the 3 florets; the *inner* incloſes only the 3d floret, and ſometimes the rudiment of a 4th. *Bloſs.* greeniſh on the outſide, white within, often tinged with pink. *Tips* yellow, fixed to the end of the threads. WITH.

Road

Road ſides, paths, ſtreets, corn-fields, eſpecially in a gravelly ſoil, A. or B. Apr.—Sept.

The ſeeds are uſeful for every purpoſe in which thoſe of the next ſpecies are employed. Great numbers of ſmall birds feed upon them.

Cows, Goats, Sheep, Horſes, and Swine eat it.

It affords nouriſhment to the *Chryſomela Polygoni*.

ſhort-leaved β. *brevifolium*. RETZ.—Leaves oblong. ST.
Ger. 451. 2, *cop. in Pet.* 10. 3.

Chives 7.

In gravelly ſpots, and road ſides. [Sandy road near Ingeſtre Heath, Staffordſhire. ST.]

narrowleaved γ. *anguſtifolium*. RETZ.—Leaves ſtrap-ſhaped. ST.
Pet. 10. 4.

Camberwell, and amongſt corn in Houndfield by Pounderſend. RAY.

thickſet δ. HUDS. Leaves oval. ST.
Pet. 10. 2.

Uncultivated places. RAY.—[Near Coleſhill, Warwickſh. ST.]

OBS. No plant varies more in the ſhape and ſize of the leaves, from ſtrap-ſhaped to oval, and in breadth from a line to ½ inch. Mr. WOODWARD.

ſea ε. HUDS.—*P. maritimum*. Chives 8. Shafts 3. Flowers from the boſom of the leaves. Leaves oval-egg-ſhaped, evergreen. Stem ſomewhat ſhrubby. LINN.
J. B. iii. 377. 1, *cop. in Pet.* 10. 5.—*H. ox.* v. 29. *row* 3. 3.—*Lob. adv.* 179.

So nearly allied to *P. aviculare* as ſcarcely to be diſtinguiſhed from it. *Flowers* in fours. *Stem* flatted on one ſide, ſhorter, hard, perennial. *Leaves* egg-ſhaped, leather-like, turning bluiſh in drying. LINN. S. LINN.

**** *Leaves nearly heart-ſhaped.*

Buckwheat POLYG'ONUM *Fagopy'rum*. Leaves heart-arrow-ſhaped. Stem nearly upright. Without prickles. Angles of the ſeeds equal.—
Dod. 512, *repr. in Lob. obſ.* 513. 3, *Ger. em.* 89, *cop. in Park.* 1141, *H. ox.* v. 29. *row* 1. 1. *f.* 1, *and Pet.* 2. 12.—*Trag.* 648.—*J. B.* ii. 993.—*Ger.* 82. 2, *repr. in C. B. th.* 530.—*Lonic.* i. 253. 1 *and* 2.

Bloſſoms purpliſh white, in long looſe ſpikes.

Buck Wheat. Bucke. Branks. French Wheat. Crap.

Corn fields. A. July. Aug.

This plant is very impatient of cold, dying at the very firſt attack of froſt. The ſeeds furniſh a nutritious meal, which is not apt

apt to turn acid upon the ſtomach. It is made into thin cakes in ſome parts of England, called Crumpits. It is uſual with farmers to ſow a crop of Buckwheat, and to plough it under when fully grown, as a manure to the land. The ſeeds are excellent food for poultry. Sheep that eat this plant become unhealthful. As it flowers late in the ſummer, M. Du Hamel, in his obſervations upon the management of bees, adviſes to move the hives in the autumn, to a ſituation where plenty of this plant is ſown.

Cows, Goats, and Sheep eat it. Swine and Horſes refuſe it.

POLYG'ONUM *Convol'vulus*. Leaves heart-ſhaped. *climbing* Stem twining, angular. Flowers blunted. LINN.

Curt. iv. 44.—*Fl. dan.* 744.—*Ger.* 713. 4.—(*Dod.* 396. 1, *repr. in Lob. obſ.* 343. 2, *Ger. em.* 863. 5, *and cop. in Park.* 172. 8, *J. B.* ii. 158, *H. ox.* v. 29. *row* 1. 2. *f.* 2, *and Pet.* 2. 12, *is P. dumetorum, but, excepting the ſeed-veſſel, it is, perhaps, the beſt repreſentation of this ſpecies when in its moſt luxuriant ſtate.*)

Bunches from the boſom of the leaves. Some *flowers* alſo at the baſe of the common fruit-ſtalk. *Seeds* covered with a 3-ſquare empalement. *Tips* violet. LINN.—*Leaves* arrow-ſhaped. CURT. ST. —*Tips* red. ST. WITH.—Keel of the *valves* ſometimes edged with a ſhallow, white, membranaceous border, ſimilar to that of *P. dumetorum*, but not exceeding $\frac{1}{4}$ of a line. ST.—*Fruit-ſtalks* channelled, the upper part covered with flowers. *Empalement* concave. *Threads* yellowiſh white. *Tips* double, with a ſmall gland juſt behind the tip. *Shafts* 3, very ſhort. *Summits* globular. *Seed*, ſides hollow. WITH.—*Bloſs.* greeniſh white. *Leaves*, angles at the baſe ſometimes lopped.

Black Bindweed.

Corn fields, gardens, and hedges. A. June.—Sept.

The ſeeds are quite as good for uſe as thoſe of the preceding ſpecies, are produced in greater quantity, and the plant bears cold better.

Cows and Goats eat it. Sheep, Swine, and Horſes refuſe it. LINN.—A horſe eat it. ST.

OBS. The *Phalæna Lubricipeda* is found upon ſeveral of the ſpecies.

Order

Order IV.

TETRAGYNIA; IV. POINTALS.

542. PA'RIS. Truelove.

EMPAL. *Cup* 4 leaves; permanent; *leaves* ſpear-ſhaped; pointed; as large as the bloſſom; expanding.
BLOSS. *Petals* 4; expanding; awl-ſhaped; reſembling the cup; permanent.
CHIVES. *Threads* 8; awl-ſhaped; ſhort; beneath the tips. *Tips* long, growing to the middle of the threads, and on each ſide of them.
POINT. *Seed-bud* roundiſh; but with 4 angles. *Shafts* 4; expanding; ſhorter than the chives. *Summits* ſimple.
S. VESS. *Berry* globular; with 4 angles, and 4 cells.
SEEDS ſeveral; lying in a double range.
ESS. CHAR. *Empal.* 4 *leaves*. *Petals* 4; *narrower (than the empalement.) Berry* 4 *cells*.

four-leaved PA'RIS *quadrifo'lia*.—

Fl. dan. 139.—*Blackw.* 286.—*Matth.* 1093.—*Dod.* 444, *repr. in Lob. obſ.* 137. 2, *Ger. em.* 405. 1.—*Ger.* 328. 1, *cop. in Pet.* 44. 8.—*Fuchſ.* 87, *cop. in J. B.* iii. 613.—*Park.* 390. 1, *cop. in H. ox.* xiii. 3. 6.

Leaves ſometimes 3, 5, and 6. C. B. HALL.—*Root* ſomewhat fleſhy. *Stem* naked. *Leaves* ſhining. *Flower* 1. LINN.—*Stem* undivided, cylindrical. *Leaves* in a whorl, expanding, ſitting, egg-ſhaped, very entire, taper-pointed, ſmooth, ribbed underneath. *Fruit-ſtalk* terminating, ſomewhat angular, with 1 flower. *Flower* green. *Empalement*, leaves ſtrap-ſhaped, bent back. *Petals* bent back, ſomewhat ſhorter than the bloſſom. *Seed-bud* black. *Shafts* thrice as ſhort as the chives. LYONS.—*Leaves* ſometimes 5. Mr. WOODWARD. WITH. ST.—And, in a number of plants growing together, only 3, but they were all ſmall and barren, poſſibly young plants not arrived at maturity. *Flower* on a fruit-ſtalk from 1 to 2 inches long. Mr. WOODWARD.—*Leaves* ſometimes 6, egg-ſhaped, tapering to a point, fixed to the top of the ſtalk. *Shafts* purpliſh black, hardly ſo long as the berry. WITH.—*Bloſſoms* pale green, ſhorter than the empalement, longer than the chives. *Shafts* ſhorter than the chives, and longer than the berry. *Herb*

Herb Paris. Truelove. One-berry.

Woods and ſhady places. [Wood near the Devil's Den near Clifton upon Teme, Worceſterſh. Mr. BALLARD. ST.—Woods on ſides of Breedon Hill, Worceſterſh. NASH.—Ripton Wood. Huntingdonſhire. In Norfolk, rare. Mr. WOODWARD.—Love Lane, near Derby. Mr. WHATELY.—About Frankly, Worceſterſhire. WITH.] P. May. June.

The leaves and berries are ſaid to partake of the properties of Opium. The juice of the berries is uſeful in inflammations of the eyes. Linnæus ſays the roots will vomit as well as Ipecacuanha, but it muſt be given in a double quantity.

Goats and Sheep eat it. Cows, Horſes, and Swine refuſe it. LINN.—The berries give out on infuſion in water a purpliſh red, which an acid turns to a bright florid red, and an alkali to a bluiſh green. ST.

543. ADOX'A. Moſchatel.

EMPAL. *Cup* beneath; cloven; flat; permanent.

BLOSS. 1 *petal*; with 4 clefts; flat; *ſegments* egg-ſhaped; ſharp; longer than the cup.

CHIVES. *Threads* 8; awl-ſhaped; as long as the cup. *Tips* roundiſh.

POINT. *Seed-bud* beneath the receptacle of the bloſſom. *Shafts* 4; ſimple; upright; as long as the chives; permanent. *Summits* ſimple.

S. VESS. *Berry* globular; between the cup and the bloſſom; the cup being connected with the under ſide of the berry; of 4 cells; dimpled at the end.

SEEDS ſolitary; compreſſed.

ESS. CHAR. *Empalement beneath; cloven into* 2. *Bloſſom with* 4 *or* 5 *clefts; above. Berry with* 4 *or* 5 *cells; united with the empalement.*

OBS. Such are the characters of the terminating flowers; but the lateral flowers have bloſſoms with 5 clefts, 10 threads, and 5 pointals.

ADOX'A *Moſchatel'lina.*— *tuberous*

Fl. dan. 94.—*Curt.* ii. 23.—*J. B.* iii. 206, *cop. in H. ox.* iv. 28. 14. —*Walc.*—*Ger.* 933. 10.—*Lob. adv.* 300. 1, *repr. in ic.* i. 674. 2, *Ger.* 1091. 10, *and cop. in Park.* 326. 6.

Root thread-ſhaped, naked, with 1 or 2 ſcales; *ſcales* remote, embracing the root, very blunt. *Bud* of 2 valves; *valves* egg-ſhaped,

very blunt, embracing the ſtem, alternate, growing together at the baſe, permanent. *Suckers* ſolitary, from the boſom of the bud and leaves, deſcending, ſtriking root. *Root-leaves* generally 4, alternate from 2 rows, doubly 3-fold; *leafits* lobed, cut, ſmooth. *Leaf-ſtalks* channelled. *Stem* of the length of the leaves, undivided, nearly 4-ſquare. *Stem-leaves* 2, oppoſite, 3-fold; *leafits* on leaf-ſtalks. *Leaf-ſtalks* channelled, running at the baſe into each other. *Fruit-ſtalk* quadrangular, bare, terminating. *Head* 4-cornered, compoſed of 4 flowers in a whorl, with a 5th at the top. *Flowers* green. *Tips* yellow- LINN.—*Root-leaves* triply 3-fold; *leafits* with 3 lobes, blunt, with a ſhort point, pimpled above, ſmooth underneath. *Empalement* pointed. *Petal* wheel-ſhaped, pimpled on the outſide. *Lateral Flowers. Empal.* cleſts 3. *Bloſs.* cleſts 5. *Chives* 10. *Shafts* 5. LYONS.—*Empalement* ſometimes cloven into 3. *Bloſs.* wheel-ſhaped, ſurrounding the ſeed-bud ſomewhat above the middle, where the empalement expands from it. *Berries* reddiſh. ST.

Tuberous Moſchatel.

Woods and ſhady places. [Bungay, Suffolk, very common. Mr. WOODWARD.—Purlieu Lane, Mathon, Worceſterſh. Mr. BALLARD.—Between Stone and Mitton, Worceſterſhire; and between Wolverhampton and Penkridge, Staffordſhire. ST.]

Goats eat it. Cows refuſe it. P. Apr. May.

544. ELAT'INE. Waterwort.

EMPAL. *Cup* 4 leaves; circular; flat; as large as the bloſſom; permanent.

BLOSS. *Petals* 4; egg-ſhaped; blunt; ſitting; expanding.

CHIVES. *Threads* 8; as long as the bloſſom. *Tips* ſimple.

POINT. *Seed-bud* large; round; globular; but depreſſed. *Shafts* 4; upright; parallel; as long as the chives. *Summits* ſimple.

S. VESS. *Capſule* large; round; globular; but depreſſed; with 4 cells, and 4 valves.

SEEDS ſeveral; creſcent-ſhaped; upright; ſurrounding the receptacle like a wheel.

ESS. CHAR. *Empal. leaves* 4. *Petals* 4. *Capſule* 4 *cells*, 4 *valves*; *depreſſed.*

whorled ELAT'INE *Alſinaſ'trum.* Leaves in whorls.—*Vaill.* 1. 6.

Leaves 8 to 12 in a whorl. HALL. Mr. WOODWARD.

Waterwort.—Ditches and bogs. P. Aug.

Claſs

Claſs IX.

ENNEANDRIA.

IX. CHIVES.

Order III.

HEXAGYNIA; VI. POINTALS.

550. BU'TOMUS. ..... *Cup* none. *Bloſſom* 6 petals. *Capſules* 6. *Seeds* many.

† Hydrocharis Morſus-ranæ.

Order III.

HEXAGYNIA; VI. POINTALS.

550. BU'TOMUS. Gladiole.

EMPAL. *Fence* ſimple; of 3 leaves; ſhort.
BLOSS. *Petals* 6; circular; concave; ſhrivelling; every other petal ſtanding on the outſide, ſmaller and ſharper.
CHIVES. *Threads* 9; awl-ſhaped; 6 of them on the outſide of the others. *Tips* compoſed of 2 plates.
POINT. *Seed-buds* 6; oblong; tapering; ending in *Shafts*. *Summits* ſimple.
S. VESS. *Capſules* 6; oblong; gradually tapering; upright; of 1 valve, which opens inwards.
SEEDS many; oblong-cylindrical; blunt at each end.

Ess. Char. *Empal.* 0. *Petals* 6. *Capſules* 6, *containing a number of ſeeds.*

water BU'TOMUS *umbella'tus.*—

Curt. i. 1.—*Fl. dan.* 604.—*Walc.*—*Ger.* 27. 2.—*Matth.* 1037.—*Dod.* 601. 1, *repr. in Lob. obſ.* 44. 2, *Ger. em.* 29. ** 2, *and cop. in Park.* 1197. 1, *H. ox.* xii. 5. *row* 3. *f.* 3.—*J. B.* ii. 524.—(*Trag.* 677. 2, *cop. in Lonic.* 173. 3, *a totally different plant.*)

Root-leaves 3-ſquare, ſpongy, ſhorter than the ſtalk. *Stalk* round. *Flowers* in a rundle. *Fence* ſheath-like, of 3 leaves. *Fruit-ſtalks* to 30, about a finger's length, ſurrounded at the baſe with withered membranous ſheaths. *Tips* red. *Duſt* bright yellow. *Summits* channelled. *Capſule* opening lengthways on the inner ſide, with 2 lips at the point. Curt. Relh.—*Rundle* terminating. *Petals* egg-ſhaped, whitiſh red. *Chives* ſhorter than the petals. *Seed-buds* red. *Summits* cloven (at the point.) Relh.—*Tips* ſhed their duſt at different times.—*Empal. leaves* membranaceous, and ſhrivelled. *Petals* uſually pale fleſh-coloured, the keel of a deeper hue, ſoon ſhrivelling. Mr. Woodw.—*Leaves* 3-cornered, very long. *Fence* of 3 brown ſpear-ſhaped leaves. *Fruit-ſtalks* long, thread-ſhaped, unequal, ſeparated by brown membranaceous leaves. *Threads* placed in a regular circle upon the receptacle, not as in the generic character. *Tips* of 2 cells, reddiſh. *Duſt* yellow. *Seeds* fixed to the ſides of the capſules. *Root-leaves* long, narrow. *Stem* cylindrical, naked. *Bloſſoms* purple and white, terminating, ſometimes quite white. With.

Flowering Ruſh. Water Gladiole.

Slow ſtreams and muddy ditches. [Side of the River Avon, at Eveſham, Worceſterſh. Mr. Ballard.—Bungay, Suffolk. Mr. Woodward.—Stafford and Tamworth. St. With.] P. June.

Neither Cows, Horſes, Sheep, Swine, or Goats will eat it. Linn—.It is an ornament to the banks of our rivers and marſhy ditches. Mr. Woodward.

Class X.

DECANDRIA.

X. CHIVES.

Order I.

MONOGYNIA; I. POINTAL.

* Flowers *of many* equal *Petals.*

583. MONOT'ROPA. .... *Cup* reſembling a bloſſom; bellying at the baſe. *Capſule* 5 cells. *Seeds* many.

598. PY'ROLA. ..... *Tips* with 2 horns pointing upwards. *Capſule* 5 cells. *Seeds* many.

† Gerania.

** Flowers *of* 1 regular *Petal.*

593. ANDROM'EDA. .... *Bloſſom* bell-ſhaped; roundiſh. *Capſule* 5 cells.

596. AR'BUTUS. ..... *Bloſs.* egg-ſhaped; tranſparent at the baſe. *Berry* 5 cells.

† Vaccinium Myrtyllus. Chlora perfoliata.

Order II.

DIGYNIA; II. POINTALS.

611. SCLERAN'THUS.... *Bloſs.* 0. *Cup* with 5 clefts; ſuperior. *Seeds* 2.

608. Saxif'raga. ..... *Blofs.* 5 petals. *Cup* with 5 divifions. *Capfule* 1 cell, and 2 bills.

613. Sapona'ria. ..... *Bloſſom* 5 petals. *Cup* tubular; naked at the baſe. *Capſule* 1 cell; oblong.

614. Dian'thus. ..... *Bloſſom* 5 petals. *Cup* tubular; ſcaly at the baſe. *Capſ.* 1 cell; oblong.

† Chryſoſplenium. Agrimonia Eupatoria.

Order III.

TRIGYNIA; III. POINTALS.

618. Arena'ria. ..... *Capſule* 1 cell. *Petals* entire; expanding.

617. Stella'ria. ..... *Capſule* 1 cell. *Petals* divided almoſt to the baſe; expanding.

615. Cucu'balus. .... *Capſule* 3 cells. *Petals* cloven. *Mouth* naked.

616. Sile'ne. ..... *Capſule* 3 cells. *Petals* cloven. *Mouth* crowned.

619. Cherle'ria..... *Capſule* 3 cells. *Honey-cups* like petals; ſmaller than the empalement.

† Sambucus Ebulus. Alſine.

Order V.

PENTAGYNIA; V. POINTALS.

628. Cotyle'don. .... *Capſules* 5, with a honey-cup to each. *Bloſſom* 1 petal.

629. Se'dum. ..... *Capſules* 5, with a honey-cup to each. *Bloſſom* 5 petals.

638. Sper'gula.

638. Sper'gula. ..... *Capſ.* 1 cell. *Petals* entire. *Cup* 5 leaves.

637. Ceras'tium. .... *Capſ.* 1 cell. *Petals* cloven. *Cup* 5 leaves.

635. Agrostem'ma. *Capſ.* 1 cell; oblong. *Cup* tubular; like leather.

636. Lych'nis. ..... *Capſ.* 3 (1 or 5, St.) cells; oblong. *Cup* tubular; membranaceous.

634. Ox'alis. ..... *Capſule* 5 cells; angular. *Bloſs.* ſomewhat connected at the baſe.

† Arenaria media. Cucubalus Behen. Gerania. Adoxa moſchatellina.

Order VI.

POLYGYNIA; MANY POINTALS.

† Ranunculus hederaceus.

Order I.

MONOGYNIA; I. POINTAL.

583. MONOT'ROPA. Birds-neſt.

EMPAL. none, unleſs you call the 5 outermoſt coloured petals the cup.

BLOSS. *Petals* 10; oblong; nearly parallel and upright; ſerrated towards the point; deciduous; the outermoſt, which are every other, bellied at the baſe, hollow within, and containing honey.

CHIVES. *Threads* 10; awl-ſhaped; upright, ſimple. *Tips* ſimple.

POINT. *Seed-bud* roundiſh; tapering to a point. *Shaft* cylindrical; as long as chives. *Summit* a blunt knob.

S. VESS. *Capſule* egg-ſhaped; blunt; with 5 angles, and 5 valves.

SEEDS numerous; chaffy.

ESS. CHAR. *Empal.* 0. *Petals* 10; *the* 5 *outermoſt of which are hollowed out at the baſe, and contain honey. Capſule* 5 *valves.*

OBS. Such are the generic characters of the terminating flower. But, if there are any lateral flowers, they contain 1-5th part leſs in number.

Primroſe-ſcented

MONOT'ROPA *Hypop'ithys.* Lateral flowers with 8, the terminating flowers with 10 chives.—

Fl. dan. 232.—*H. ox.* xii. 16. 13, *in flower*, 20, *in fruit.*—*Pluk.* 209. 5.—[*Plot oxf.* 9. 6, *as after flowering for the withered chives often remain ſurrounding the capſule. Mr. Woodward.*]

Spike when in flower nodding, when in fruit upright. Mr. WOODWARD.—The whole plant ſmells ſweet, and is of a pale yellow colour, which peculiarity is generally confined to paraſitical plants, and thoſe that grow in very ſhady ſituations.

Birds-neſt, ſmelling like Primroſe roots.

Woods, growing on the roots of other plants. In Oxfordſhire, Bedfordſhire, Bucks, Berks, and the Beech Woods of Suſſex. [Shottiſham, Norfolk. Mr. CROWE.—In a Pine Grove, Stoke, Norfolk. Mr. WOODWARD.—Lord Stamford's Woods, at Enville, Staffordſhire. WITH. and ST.] P. July.

The

The country people in Sweden give the dried plant to cattle that have a cough.

593. ANDROM'EDA. Moorwort.

EMPAL. *Cup* with 5 diviſions; pointed; very ſmall; coloured; permanent.

BLOSS. 1 *petal*; bell-ſhaped; with 5 clefts. *Segments* reflected.

CHIVES. *Threads* 10; awl-ſhaped; ſhorter than the bloſſom, to which they ſlightly adhere. *Tips* with 2 horns; nodding.

POINT. *Seed-bud* roundiſh. *Shaft* cylindrical; longer than the chives; permanent. *Summit* blunt.

S. VESS. *Capſule* roundiſh; with 5 angles, 5 cells, and 5 valves; opening at the angles.

SEEDS numerous; roundiſh; ſhining.

ESS. CHAR. *Empal. with 5 diviſions. Bloſſom egg-ſhaped; mouth with 5 clefts. Capſule 5 cells.*

OBS. The bloſſom in ſome ſpecies is egg-ſhaped, but in others truly bell-ſhaped, and the tips are either with or without awns. LINN.—In the *A. Dabœcia* there is one fifth of the parts of fructification leſs. REICH.

ANDROM'EDA *Poliſo'lia*. Fruit-ſtalks incorporated. Bloſſoms egg-ſhaped. Leaves alternate, ſpear-ſhaped, rolled back at the edges. *Roſemary*

Fl. lapp. 1. 2, *under ſurface of the leaves beſt done.*—*Pluk.* 175. 1, *upper ſurface of the leaves the beſt done.*—*Park.* 76. 7.—*Walc.*—*Fl. dan.* 54.—*J. B.* i. *a.* 227. 1.—*Buxb.* v. 55. 1.—*Ray ed.* i. 1. 1.

Tips awned. LINN.—*Shaft* white. *Summit* purple. WITH.—*Bloſſoms* tinged with red.

Marſh Ciſtus. Wild Roſemary. Poley Mountain. Moorwort. Marſh Holy Roſe.

Turf bogs. Yorkſhire, Cheſhire, Lancaſhire, Weſtmoreland, Cumberland, and Scotland. [Bogs about Halifax, Yorkſhire. Mr. CROWE.] S. June.

ANDROM'EDA *Dabœ'cia*. Flowers in bunches, pointing one way, Bloſſoms with 4 clefts, egg-ſhaped. Leaves alternate, ſpear-ſhaped, rolled back.— *Iriſh*

Pet. gaz. 27. 4.

Bunch

Bunch terminating, ſimple. *Flowers* alternate. *Pedicles* with 1 flower, ſomewhat clammy. *Floral-leaf* ſtrap-ſhaped, at the baſe of each pedicle. *Empalement* of 4 leaves, awl-ſhaped, upright, purpliſh, only a 4th part as long as the bloſſom, falling off. *Bloſſoms* violet, cylindrical-oval, twice as large as that of the *Andromeda polifolia*,; *mouth* a little contracted, with 4 clefts; *ſegments* bent back. *Chives* 8. *Threads* white. *Tips* as long as the threads, juſt ſhorter than the bloſſom, brown, arrow-ſhaped, without horns, lopped at the end with 2 orifices. *Shaft* thread-ſhaped, as long as the bloſſom. *Summit* blunt, ſlightly cloven into 4. *Fruit* a *capſule* of 4 cells, and 4 valves. It has the habit of *Andromeda*, but the numbers of *Erica*. LINN.—*Stem* downy, with alſo numerous expanding hairs. *Leaves* above ſhining, dark green, with a few long hairs near the edges, underneath white with a thick down; thoſe towards the bottom egg-ſpear-ſhaped, the upper ſpear-ſhaped. *Flower-ſcales* ſmall, 1 at the baſe of each fruit-ſtalk. Mr. WOODWARD.—Whole *plant* thick ſet with hairs terminating in globular heads. *Leaves* dark green on the upper ſurface, but underneath white with woollineſs. *Empalement* of 1 leaf, permanent, deeply divided into 4 ſpear-ſhaped ſegments. *Bloſſoms* flatted at the baſe, and marked lengthways with 4 ſlightly elevated ridges; *ſegments* ſpear-ſhaped, waved at the edge, rolled back. *Chives* ſomewhat ſhorter than the bloſſom. *Tips* rather longer than the threads. *Duſt* white. *Seed-bud* egg-ſhaped, beſet with white briſtles terminating in little knobs. *Shaft* briſtly at the baſe, but ſmooth above. *Summit* reddiſh, blunt, marked with 4 hollow dots at the end. ST. WITH.—From the empalement it is clearly an *Andromeda*, and not an *Erica*, as Mr. Hudſon continues to regard it. *Bloſs.* purple, at the very baſe white. ST.

Iriſh Worts.

Spongy wet uncultivated land on the mountains of Mayo and Hiar Connacht. RAY. S. June. July.

596. AR'BUTUS.

596. AR'BUTUS. Strawberry-tree.

EMPAL. *Cup* with 5 diviſions; blunt; very ſmall; permanent.

BLOSS. 1 *petal*; egg-ſhaped; flattiſh at the baſe; *mouth* with 5 clefts; *ſegments* blunt; rolled back; ſmall.

CHIVES. *Threads* 10; awl-ſhaped, but diſtended; very ſlender at the baſe; half as long as the bloſſom, and fixed to the margin of its baſe. *Tips* ſlightly cloven; nodding.

POINT. *Seed-bud* nearly globular; ſitting upon the receptacle, which is marked with 10 dots. *Shaft* cylindrical; as long as the bloſſom. *Summit* rather thick and blunt.

S. VESS. *Berry* roundiſh; with 5 cells.

SEEDS ſmall; of a bony hardneſs.

ESS. CHAR. *Empal. diviſions* 5. *Bloſſom egg-ſhaped; tranſparent at the baſe. Berry, cells* 5.

AR'BUTUS *Un'edo*. Stem tree-like. Leaves ſmooth, bluntly ſerrated. Panicle terminating. Berries with many ſeeds.— *common*

Hunt. Evel. 373.—*Mill.* 48. 1 *and* 2.—*Cluſ.* i. 47. 2, *repr. in Dod.* 804. 2, *Lob. obſ.* 571, *Ger. em.* 1496, *and cop. in Park.* 1490. 1, *and J. B.* i. *a.* 83.—*Matth.* 270, *cop. in Ger.* 1310. 2.—*Lonic.* i. 56. 1.

Berries rough with tubercles formed by the ſeeds. LINN.—*Stem*, ſerratures of the *Leaves* and *Flower-ſcales* coloured. *Empal.* ſegments lapping over each other, coloured at the points. *Bloſſoms* greeniſh white, a little hairy within. *Threads* very hairy, about the middle very thick and pulpy. *Tips* reddiſh-ſcarlet, double, opening at the baſe, with 2 yellow horns. *Seed-bud* beſet with glands. *Berries* red. WITH.

In the Weſt of Ireland; in the county of Kerry; near the Lake of Killarney. RAY. [Mr. CROWE.]—On barren limeſtone rocks. S. Sept. [Nov. at Birmingham. WITH.]

It is a beautiful ornament to our ſhrubberies, not only on account of its foliage and flowers, but of its fruit, which is pleaſing to the eye, though not grateful to the taſte. The country people, however, in Ireland, eat it, but always drink water after.

AR'BUTUS *alpi'na*. Stems trailing. Leaves wrinkled, ſerrated.— *mountain*

Fl. dan.

Fl. dan. 73.—*Lightf.* 11. *a. b. at p.* 216.—*Cluſ.* i. 61, *cop. in Ger. em.* 1417. 4, *and Park.* 1456. 3.—*Ger.* 1230. 4.—*J. B.* i. *a.* 519.

Berries black, globular, ſitting upon a very ſmall red cup.

Dry mountains, in Scotland and the Weſtern Iſles. S. May.

The berries have ſomething of the flavour of black currants, but they are not ſo good.—Goats refuſe it.

Bearberry AR'BUTUS *Uva-urſi.* Stems trailing. Leaves very entire.—

Fl. dan. 33, *cop. in Blackw.* 592. 2 *and* 3, *with the addition of* 1.—*Fl. lapp.* 6. 3.—*Lightf.* 11. *c. d. at p.* 216.—*J. B.* i. *a.* 523.—*Zanon.* 178, *ſerratures too much like hairs.*—*Ger.* 1221. 1.—*Cluſ.* i. 63. 2, *repr. in Lob. obſ.* 547. 1, *Ger. em.* 1416. 5, *and cop. in Park.* 1457. 6, *is repreſented with leaves much larger than any I have ever ſeen.*

Leaves oblong-wedge-ſhaped, with a net-work of veins underneath, and correſponding wrinkles above. *Bloſſom*, mouth very much contracted, tinged with red. Mr. WOODWARD.—*Flowers* fleſh-coloured. *Berries* red. *Leaves* not dotted underneath as in *Vaccinium Vitis-idæa.* LIGHTF.—*Vaccinium Urſi, ſive Uva-urſi apud Cluſium. Ger. em.* 1416. (Mr. BALLARD.)

Bear-berries. Bear Whortle-berries.

Dry heaths and woods. Eaſt Common Wood, near Hexham, Northumberland. Iſle of Mull, next to Y-Columb-Kill, growing plentifully for ſome miles together, where it was firſt obſerved by Mr. Llwyd. LIGHTF. S. May. June.

The berries are inſipid, pulpy, and mealy. The plant is much uſed in Sweden to dye an aſh-colour, and to tan leather. Half a dram of the powdered leaves given every, or every other day, has been found uſeful in calculous caſes. It was firſt uſed for this purpoſe at Montpelier, and afterwards by Dr. de Haen, at Vienna, who relates ſeveral caſes, in which it proved of the greateſt ſervice. Its ſucceſs in England has been uncertain. Sometimes the patients found no relief, but thought their complaints rather aggravated than alleviated; whilſt, in other calculous and nephritic caſes, the ſymptoms have been almoſt entirely removed. Perhaps, upon the whole, we ſhall find it no better than other vegetable aſtringents; ſome of which have long been uſed by the country people, in gravelly complaints, and with very great advantage; though hitherto unnoticed by the regular practitioners. WITH.

Horſes, Cows, Goats, and Sheep refuſe it.

598. PY'ROLA. Wintergreen.

EMPAL. *Cup* with 5 diviſions; very ſmall; permanent.
BLOSS. *Petals* 5; circular; concave; expanding.
CHIVES. *Threads* 10; awl-ſhaped; ſhorter than the bloſſom. *Tips* large; nodding; with 2 horns pointing upwards.
POINT. *Seed-bud* roundiſh; angular. *Shaft* thread-ſhaped; longer than the chives; permanent. *Summit* rather thick.
S. VESS. *Capſule* roundiſh; depreſſed; with 5 angles and 5 cells; opening at the angles.
SEEDS numerous; chaffy.

ESS. CHAR. *Empalement with* 5 *diviſions. Petals* 5. *Capſule* 5 *cells; opening at the corners.*

OBS. In ſome ſpecies the threads and ſhaft are upright, in others declining to one ſide, and in others again expanding. The ſhape of the ſummit is different in different ſpecies.

PY'ROLA *rotundifo'lia.* Chives aſcending. Pointal declining.— *common*

Fl. dan. 110, *cop. in Blackw.* 594.—*Matth.* 982.—*Fuchſ.* 467, *cop. in Trag.* 707, *J. B.* iii. 535, *and Dod.* 138, *which repr. in Ger. em.* 408. 1.—*Ger.* 330. 1.—*Cluſ.* ii.-116. 3, *repr. in Lob. obſ.* 157. 2, *improved with the addition of a bunch in fruit in H. ox.* xii. 10. *row* 2. 1, *and cop. in Park.* 508.—*Lonic.* 186.

Bloſſoms white, on ſlender fruit-ſtalks.

Wintergreen.—Woods and groves in the North of England; in the South, rare. Near Halifax, Yorkſh. Stoken-church Woods, Oxfordſhire. [Hockfall Woods, near Grewelthorpe, Raydale Wood, near Carr-end Wenſley Dale, and Tennant's Wood, near Kilnſay, Yorkſhire. CURT. —— Meadow at Gorleſtone, Suffolk. Mr. WIGG.] P. June. July.

Goats eat it. Cows, Horſes, Sheep, and Swine refuſe it.

PY'ROLA *mi'nor.* Flowers in a bunch, ſcattered. Chives and pointal ſtraight.— *leſſer*

Fl. dan. 55.

Much reſembles the *P. rotundifolia.* *Stem* in both 3-cornered. It is very probable that this plant was firſt produced by the duſt of the *P. ſecunda*, impregnating the ſeed-bud of the firſt ſpecies. *Bloſs.* reddiſh white. LINN.—Two flowering *ſtems* frequently ariſe from the

the ſame root. *Leaves* much ſmaller than in *P. rotundifolia*. Whole plant ſmaller and weaker. Mr. WOODWARD.

Woods. Near Clapham, Yorkſhire. Highlands, and Iſle of Skye. [Near Tring, Herts. Mr. WOODWARD.] P. June. July.

ſerrated PY'ROLA *ſecun'da*. Flowers in a bunch, from one ſide.—*Fl. dan.* 402.—*Cluſ.* ii. 117. 1, *repr. in Ger. em.* 408. 2, *and cop. in J. B.* iii. 536. 1, *Park.* 509. 3, *and H. ox.* xii. 10. *row* 2. 4.

The chives project beyond the bloſſom, and the ſummit beyond the chives. *Bloſſoms* white.

Woods. Haſlewood, near Sir Walter Vavaſor's Park, Yorkſhire. P. Huds. S. Linn. June.

Goats eat it. Sheep refuſe it.

Order II.

DIGYNIA; II. POINTALS.

608. SAXIF'RAGA. Saxifrage.

EMPAL. *Cup* 1 leaf; with 5 diviſions; ſhort; ſharp; permanent.

BLOSS. *Petals* 5; expanding; narrow at the baſe.

CHIVES. *Threads* 10; awl-ſhaped. *Tips* roundiſh.

POINT. *Seed-bud* roundiſh, but tapering, and ending in 2 ſhort *Shafts*. *Summits* blunt.

S. VESS. *Capſule* ſomewhat egg-ſhaped; with 2 bills, and 1 cell; opening between the bills.

SEEDS numerous; minute.

ESS. CHAR. *Empal.* 5 *diviſions. Bloſſom* 5 *petals. Capſule with* 2 *bills,* 1 *cell, many ſeeds.*

OBS. In ſome ſpecies the *Seed-bud* is beneath; in others, it is above. After the flower is open, 2 of the *Chives* oppoſite to each other, bend down to the *Summits*, and diſchage their duſt perpendicularly over them. The next day 2 others bend down; and this is continued until they have all done the ſame.

* *Leaves undivided. Stem nearly naked.*

hairy SAXIF'RAGA *ſtella'ris*. Leaves ſerrated. Stem naked, branched. Petals taper-pointed.—

Fl. dan.

Fl. dan. 23.—*Fl. lapp.* 2. 3, *root, leaves, and ſtem.**—*Scop.* 13. *n.* 492. *at p.* 290.—*Pluk.* 58. 2.—*ib.* 222. 4, *cop. in H. ox.* xii. 9. 13.—*J. B.* iii. 708. 1.

Leaves cloſe to the root, numerous, oblong-ſpear-ſhaped, narrowing downwards, ſerratures pointed, moſtly towards the end. *Stem* a finger's length, bare. *Flowers* 3 to 5, on ſhort fruitſtalks. *Empalement* bent back. *Petals* ſpear-ſhaped, tapering each way, white, with 2 oblong tawny ſpots near the baſe. *Tips* purpliſh. LINN.—*Leaves* in one or more ſtar-like tufts from each root, wedge-ſhaped, entire at the baſe, rather indented at the top, ſlightly hairy. *Stem*, 1 from each tuft, ſlightly hairy. *Branches*, each having at its baſe a leaf, ſpear-ſhaped, entire, or cloven into 3, and bearing 1 or 2 flowers. Mr. WOODWARD.—*Stem-leaves* generally 2 together at the baſe of each branch, ſometimes ſpear-ſhaped, but generally ſtrap-ſhaped, and ſometimes with a tooth on each ſide towards the point. ST.

Hairy Kidneywort.

Moiſt rocks, and by the rills of Snowdon, Carnedh-Llewellyn, and Caderidris, &c. North of England, and in Scotland. [About Buckbarrow Well, Longſledale, Yorkſhire. CURT.—Mountains in Lancaſhire, Weſtmoreland, and Cumberland. Mr. WOODW. —Between Paterdale and Winander Mere. ST.] P. June. July.

SAXIF'RAGA *nivalis*. Leaves egg-ſhaped, ſcolloped, nearly ſitting. Stem naked. Flowers in heads.— *mountain*

Fl. dan. 28.—*Lightf.* 12. *at p.* 221.—*Ray* 16. 1, *in its moſt luxuriant ſtate.*—*Fl. lapp.* 2. 5 *and* 6, *in its dwarfer and more common ſtate.*

Leaves blunt, lying on the ground. *Stem* ſomewhat hairy, with a ſlight tinge of purple. *Petals* blunt, white. Scarcely is any plant ſubject to ſuch remarkable variations, in appearance as well as ſize. Sometimes it is exceedingly ſmall, with heart-ſhaped leaves, flowers collected into a ſingle head, and a ſtrap-ſhaped leaf at the baſe. Sometimes it produces only a ſingle flower on a ſtalk, and ſometimes 2 of theſe riſe from one root. At other times it bears a number of flowers at the top of the ſtalk, on fruit-ſtalks diſpoſed in form of a rundle, and ſometimes it appears twice as large, with a ſpike compoſed of ſmaller ones as figured in Ray. But in all theſe ſtates it is eaſily diſtinguiſhable by its leaves reddiſh underneath, and purpliſh pointals. LINN.—*Root-leaves* ſmooth, in a tuft

* The reſt of the figure repreſents a variety in which the greater part of the flowers run into leafy tufts. ST.

tuft. *Stem* ſlightly hairy. *Flowers*, each with a ſmall floral-leaf, reddiſh at the point. *Empal.* ſegments reddiſh at the point. Mr. WOODWARD.

Summits of the higher mountains of Wales and Scotland.—Glyder Vawr, near Snowdon. PENN. Wales. P. July. Aug.

London Pride SAXIF'RAGA *umbroſa*. Leaves inverſely egg-ſhaped, ſomewhat dented at the end. LINN. Mr. DICKENSON.

Mill. 141. 2.—*Park.* 738, *fig.* 2*d*.—*par.* 233. 5.

Geum folio ſubrotundo majori, piſtillo floris rubro. TOURN. R. ſyn. 355.—*Sedum ſerrat. fl. rub. maculato.* PARK. par. 232.—*Sedum mont. ſerrat. guttato fl.* PARK. 738.—*Cotyledon ſive Sedum montan. latifol. ſerrat. guttato flore ib.* 741. *R. hiſt.* 1046. ST.

London Pride. None-ſo-pretty. Princes Feather.

Mountains of Sligo, and on Mangerton in Kerry, Ireland. P.

** *Leaves undivided. Stem leafy.*

heath-like SAXIF'RAGA *oppoſitifolia*. Stem-leaves oppoſite, tiled; the uppermoſt fringed.—

Fl. dan. 34, *ſtems undivided.*—*Fl. lapp.* 2. 1.—*Pet.* 61. 9.—*J. B.* iii. 694. 1, *cop. in H. ox.* xii. 10. 36.

Stems thread-ſhaped, hanging down, creeping. *Leaves* from 4 lines, ſitting, fringed. Terminating *flower* ſolitary, ſitting. LINN. —*Leaves* oval, ſomewhat running down the ſtem, in oppoſite pairs, alternately from each ſide of the ſtem, giving the appearance of being quadrangularly tiled, all fringed, ſea-green, frequently tinged with purple. *Empal.* purpliſh, fringed. *Petals* very blunt, bright purple. *Tips* purple. Mr. WOODWARD.

Rocks. On the north ſide of Ingleborough; higher rocks of Snowdon, about Llanberys; Highland mountains, and Iſles of Rum and Skye. [Ingleborough and Pennigent. CURT.—This beautiful plant inſinuates its roots into every crevice, and, with its numerous trailing branches, clothes, with a rich tapeſtry, the perpendicular rocks on the weſt ſide of the ſummit of Ingleborough. Mr. WOODWARD.] P. March. April.

marſh SAXIF'RAGA *Hir'culus*. Stem-leaves ſpear-ſhaped, alternate, naked, without prickles. Stem upright. LINN. —Leaves pointed. Stem aſcending, leafy. HUDS.—*Leaves fringed with hairs, but not with thorns or ſtiff briſtles.* LINN. fl. ſuec. RETZ. obſ. i. 45.—*Theſe hairs ſometimes wanting.* WIGG.

Fl. dan.

Fl. dan. 200.*—*Breyn. cent.* 48, *cop. in H. ox.* xii. 8. *row* 2. 6. *a.*—*Breyn. ib. p.* 106, *cop. in H. ox.* 6.—*Gmel.* iv. 65. 3.—*Hall.* 11. 3.—*Cluſ. cur.* 6, *repr. in Ger. em.* 1284. 8, *and cop. in Park.* 656, *figure the loweſt, and H. ox.* xii. 8. 5.

Stem purple, ſimple, generally with 2 or 3 flowers. *Fruit-ſtalks* downy. *Empalement* bent back. *Leaves* not fringed. *Petals* ribbed, yellow, with tawny dots, towards their baſe an oblong hollow or chink of 2 valves, with pointed ends, containing honey. LINN. mant. ii.—*Root-leaves* ſpear-ſhaped. *Stem-leaves* ſtrap-ſhaped, in an alpine ſpecimen elliptical. In none of my ſpecimens are the *fruit-ſtalks* without down, as in the figures of Haller and Gmelin, though in the alpine ſpecimen they are ſomewhat leſs downy. RETZ.—*Stems* ſimple, ſomewhat woody, beneath the flowers very hairy. *Leaves*, the lower on ſhort fruit-ſtalks, the upper ſitting. *Flowers* 1 or 2, large, yellow. *Petals* oval, which as alſo the ſegments of the empalement are marked with ſeveral nearly parallel ribs, which clearly diſtinguiſhes it from the *S. autumnalis.* Mr. WOODWARD.

Turf bogs. Knutsford Moor, Cheſhire. RAY and LIGHTF. who firſt aſcertained it to be the *S. Hirculus* P. July, Aug.

SAXIF'RAGA *autumna'lis.* Stem-leaves ſtrap-ſhaped, alternate, fringed. Root-leaves incorporated.— *autumnal*

Cluſ. ii. 60. 3, *repr. in Ger. em.* 516. 2, *and cop. in Park.* 737. 7, *J. B.* iii. 693. 2, *Pet.* 61. 10, *H. ox.* xii. 6. *row* 2. 3. *f.* 5, *has moſt of the true habit.*—*Scop.* 14, *at p.* 214.—*Fl. dan.* 72.—*H. ox.* xii. 6. *row* 2. 3. *f.* 5.—*(H. ox.* xii. 8. 6, *is a copy of Breyn. fig. of P. Hirculus.)*

Empalement far ſhorter than the bloſſom, green. *Flowers* beneath. LINN.—*Leaves*, hairs at the edge ſometimes numerous, ſometimes few, and ſometimes altogether wanting. JACQ.—*Hairs* at the edge of the leaves more properly minute prickles. RETZ.—*Root-leaves* matted. *Stems* numerous, aſcending. *Stem-leaves* numerous, ſtrap-ſpear-ſhaped, ſcattered, half embracing the ſtem, ſometimes with a few hairs at the edge, but oftener without. *Fruit-ſtalks* many, from the boſom of the leaves, of various lengths, the lower ones longeſt; generally with 1 flower. *Flower-leaves* 2 on each fruit-ſtalk. *Empalement* nearly as long as the bloſſom. *Petals* blunt, yellow, ſpotted. *Tips* yellow. Mr. WOODWARD.

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* The hairs at the edge of the leaves repreſented too like the little prickles of the *S. autumnalis.* RETZ.

S. aizoides and *autumnalis* ſeem to be one and the ſame plant. JACQ. LIGHTF. HUDS. and RETZ.—Our plant is, without doubt, the *S. aizoides*; but, when I find Linnæus deſcribing "the empalement" of the *S. autumnalis* as "far ſhorter than the bloſſom," and retaining his reference to H. ox. though a copy of Breyn. fig. of *S. Hirculus*, I am induced to ſuſpect his *S. autumnalis* to be the variety of *S. Hirculus with fringed leaves*, rather than a variety of *S. aizoides*. In confirmation of this, it may be obſerved, that in the 1ſt edition of the Fl. ſuec. the *S. Hirculus* is characteriſed as having fringed leaves, in the 2d, the character is altered, but it is ſtill deſcribed as fringed, and in the Sp. pl. the leaves are expreſsly ſaid *not to be fringed*. ST.

Ingleborough Hill, and in Weſtmoreland. Beeſton Caſtle, Cheſhire; [and in Long Sledale and Whitfell Gill, near Aſkrig, Yorkſhire. CURT.—Bogs on mountains in the northern counties. Mr. WOODWARD.] P. July. Aug.

**** Leaves gaſhed. Stems upright.*

white SAXIF'RAGA *granula'ta*. Stem-leaves kidney-ſhaped, gaſhed. Stem branched. Root beaded.—

Curt. i. 9.—*Fl. dan.* 514.—*Mill. ill.*—*Ludw.* 120.—*Walc.*—*Matth.* 978.—*Fuchſ.* 747, *cop. in J. B.* iii.—*Dod.* 316. 1, *repr. in Lob. obſ.* 335. 2, *Ger. em.* 841. 1, *and cop. in Park.* 424. 1 *and* 2, *and H. ox.* xii. 9. 23.—*Ger.* 693. 1.—*Trag.* 525, *cop. in Lonic.* i. 220. 1.—*Blackw.* 56.

Root conſiſting of ſeveral tubercles crowded together. *Seed-bud* beneath. LINN.—*Branches* without leaves. *Cup* a little hairy. *Bloſſoms* white.

White Saxifrage.

Dry meadows and paſtures. Near Wandſworth. [Bevere, near Worceſter. ST.] P. April. May.

Goats eat it. Cows, Sheep, Horſes, and Swine refuſe it.

rue-leaved SAXIF'RAGA *tridactyli'tes*. Stem-leaves wedge-ſhaped, alternate, with 3 clefts. Stem upright, branched. *Leaves in very dry ſituations ſometimes undivided.*—

Curt. ii. 22.—*Walc.*—*Sheldr.* 24.—*H. ox.* xii. 9. 31.—*Ger.* 499. 3, *cop. in Pet.* 61. 8.—*Scop.* 16. 499.—*Blackw.* 212.—*(Dod.* 112. 3, *repr. in Lob. obſ.* 249. 3, *Ger. em.* 624. 2, *and cop. in Park.* 556. 4 & 4, *ſeems dubious as having leaves nearly toothed.)*

The whole *plant* is ſet with hairs which pour out a clammy liquor at their points. *Chives* diſcharge their duſt as in obſervation on the genus. LINN.—*Plant* reddiſh, hairy. *Hairs* clammy. *Stem* 3 inches high, cylindrical, branched. *Root-leaves* on leaf-ſtalks, with

with 5 lobes, fleſhy, edge very entire. *Stem-leaves* ſitting, the uppermoſt ſpear-ſhaped. *Fruit-ſtalks* thread-like, with 1 flower. *Petals* white, egg-ſhaped. LYONS.——Turns red after flowering. *Hairs* terminating in globules. *Stems* forked, in ſome ſituations trailing. *Root-leaves* tapering down into flat leaf-ſtalks. *Stem-leaves* ſitting, the upper, and ſometimes all above the firſt branches, ſpear-ſhaped and oppoſite. *Fruit-ſtalks* with ſingle flowers, from the boſom of the leaves. *Empal.* mouth with 5 egg-ſhaped cleſts. *Petals* egg-ſhaped, but little longer than the ſegments of the empalement; white. *Tips* yellow. *Summits* ſpear-ſhaped. *Capſule*, cells 2. WITH.

Rue Whitlow-graſs.

Walls, roofs, and amongſt rubbiſh. A. Apr. [and May. WITH.]

It was formerly infuſed in beer, and drank for a long time was ſaid to cure the King's Evil.

SAXIF'RAGA *cæſpito'ſa*. Root-leaves incorporated, ſtrap-ſhaped, entire, or with 3 cleſts. Stem upright, nearly naked, with moſtly 2 flowers.— *matted*

Gunn. ii. 7. 3 *and* 4.—*Scop.* 14. 494. *at p.* 214.—*Hall. opuſc. it. helv.* 1. 1. *at p.* 300.—*(Fl. dan.* 71,* as believed by Oeder. —*J. B.* iii. 762. 2, *is S. hypnoides.)*

Plant ſmooth, except the upper branches, which are clammy. *Root-leaves* cluſtered into a turf, wedge-ſhaped, blunt, with diviſions, running down into ſtrap-ſhaped leaf-ſtalks. *Stem* of a finger's length, almoſt naked, with 2 or 3 ſtrap-ſhaped, undivided leaves. *Flowers* 1, ſometimes 2, terminating, of the larger ſize. *Petals* blunt, of a whitiſh greeniſh hue, turning yellowiſh in drying, [yellow, *ſyſt. veg.*] ſcored. LINN.—*Empalement* alſo clammy. Mr. WOODWARD.

Mountains above Ambleſide, Weſtmoreland. P. July. Aug.

**** *Leaves gaſhed. Stems trailing.*

SAXIF'RAGA *hypnoi'des*. Stem-leaves ſtrap-ſhaped, entire, or cloven into 3. Suckers trailing. Stem upright, rather naked.— *Moſs*

Fl. dan. 348, *foliage too luxuriant.—H. ox.* xii. 9. 26, *habit of the barren ſtems better expreſſed.—J. B.* iii. 762. 2.—*Park.* 739, *ill done, unleſs ſome other ſpecies.—(Scop.* 16. 499. *at p.* 296, *is S. tridactylites.)*

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* Flowers much larger. HALL. Mr. WOODWARD.—Seems a different plant. Leaves broad, with many cleſts. Mr. WOODWARD.

Plant clammy. *Leaves* on long leaf-ſtalks. *Suckers* ſometimes producing buds. LINN.—*Stem* ſmooth. *Leaves* hairy. Mr. WOODWARD.—*Stem*, *fruit-ſtalks*, and *empalement* thickly ſet with ſhort hairs, terminated by minute red globules; the reſt of the plant thinly ſet with fine white hairs. *Upper-leaves*, both of the ſtem and trailing ſuckers, generally entire; the lower frequently cloven into 3. *Petals* marked with 3 green lines, ſlightly cloven at the end. *Summits* broad and flat, but pointed and bent back. *Seed-bud* top-ſhaped. WITH.—Whole *plant* becomes reddiſh when fully grown. *Empalement* green. *Bloſs.* greeniſh white. *Chives* yellow.

Ladies Cuſhion by the gardeners.

Rocks and high mountains. Snowdon, and other mountains in Wales, Weſtmoreland, Yorkſhire, Derbyſhire, Malham Cove, Chedder Rocks. [About Settle. CURT.—Dovedale, Derbyſhire, and northern counties. Mr. WOODWARD.—Middleton Dale, Derbyſhire. Mr. WHATELY.] P. May.—July.

It is cultivated in our gardens as an edging for borders.

A Horſe refuſed it. ST.

611. SCLERAN'THUS. Knawel.

EMPAL. *Cup* 1 leaf; tubular; with 5 ſhallow clefts; ſharp; permanent; narrow at the neck.

BLOSS. none.

CHIVES. *Threads* 10; awl-ſhaped; upright; very ſmall; fixed to the cup. *Tips* roundiſh.

POINT. *Seed-bud* roundiſh. *Shafts* 2; upright; hair-like; as long as the chives. *Summits* ſimple.

S. VESS. *Capſule* egg-ſhaped; exceedingly thin; in the bottom of the cup; which cloſes at the neck.

SEEDS 2; convex on one ſide, and flat on the other. (1. LEERS. ST.)

ESS. CHAR. *Empalement* 1 *leaf.* *Bloſs.* 0. *Seeds* 2; *incloſed by the empalement.*

annual SCLERAN'THUS *an'nuus*. Empalements open when the fruit is ripe. LINN.—Segments tapering to a point. ST.*

Fl. dan. 504.—*Trag.* 393, *cop. in Lonic.* i. 169. 1.—*Ger. em.* 566. 4, *cop. in Park.* 447. 7.—*Ger.* 452. 2, *cop. in Pet.* 9. 6. —*(Pet.* 9. 7, *with Haller I refer to S. perennis.)*

* Acuminatis. ST.

Seed

Seed 1. HALL. LEERS. ST.—*Empal.* ſegments with an exceedingly narrow, whitiſh, membranaceous margin. *Chives* 5 or 7, very ſhort. LEERS. ST.—*Chives* fewer than 10. HALL. ST.—*Branches* in pairs, conſtantly downy. *Leaves* at the joints of the ſtem and branches, oppoſite, awl-ſhaped, ſlightly joined together at the baſe, bellying below, with membranaceous and downy edges, ſmooth above. *Flowers* in cluſters at the end and diviſions of the branches, ſitting. *Empalement* downy at the baſe; ſegments awl-ſhaped, ſmooth. Mr. WOODWARD.—*Empalement* bell-ſhaped, cloven more than half way down, marked below with 10 elevated ribs, when the ſeed is ripe acquiring a bony hardneſs; *ſegments* while in bloſſom ſlightly open, after the duſt is ſhed expanding, when the fruit is ripe, open. *Chives* 6 to 9, generally 8, unequal, 2 or 3 of them twice as long as the reſt and producing duſt, the reſt barren. *Shafts* white. *Seed* egg-ſhaped. ST.—*Flowers* at the baſe of the leaves, greeniſh.

German Knot-graſs. Knawell.

Sandy ground and corn fields. A. July. Aug.

The Swedes and the Germans receive the vapour arising from a decoction of it into their mouths, to cure the tooth-ach.

Goats and Sheep eat it. Cows refuſe it.

SCLERAN'THUS *peren'nis.* Empalements cloſed when the fruit is ripe. LINN.—Segments oblong, rounded at the point. ST.† *perennis*

Ray 5. 1. *at p.* 160.—*J. B.* iii. 378. 1, *cop. in H. ox.* v. 29.* *row* 1. *f.* 2, *but petals made pointed.*—*Ger.* 453, *cop. in Ger. em.* 567. 5, *Park.* 427. 2, *and Pet.* 9. 7.—*Fl. dan.* 563, *and Vaill.* 1. 5, *may be good figures of it in ſome of its ſtates, but are not happy repreſentations of what ſpecimens I have ſeen.—(Ray ib. a. is a good repreſentation of the empalement of S. annuus.—Gmel.* iii. 6. 1 *and* 2, *is a diſtinct ſpecies.)*

Leaves bowed, ſtrap-ſhaped, very narrow, broader at the baſe. *Flowers* crowded together at the top of the ſtems. *Empal.* whitiſh, with a green line running along the ſegments; *ſegments* upright, not quite cloſed, but not ſo open as in the *S. annuus.* HALL. ST.—*Empal.* ſegments blunt, with whitiſh membranaceous borders. *Seed* 1, as that of *S. annuus.* LEERS. ST.—*Plant* often reddiſh. *Branches* ſometimes, but not always downy, thickly ſet with leaves. *Leaves* broader and ſhorter than thoſe of the *S. annuus*, oppoſite, frequently pointing one way, ſea-green, fringed with down at the

† Rotundatis. ST.

edge, the reſt ſmooth, bellying and membranaceous below, ſlightly joined at the baſe. *Flowers*, ſome at the diviſions of the ſtem, but moſtly in terminating bunches, ſitting. *Empalement* ſmooth, ſea-green with white edges, blunt. Mr. WOODWARD.—*Empal.* ſegments concave. *Chives* 10. ST.

Sandy corn fields. Elden, Suffolk. [Snetiſham, Norfolk. Mr. CROWE.—Bury, Suffolk. Mr. WOODWARD.] P. July. Aug.

The Poliſh cochineal, *Coccus polonicus*, is found upon the roots, in the ſummer months.

ſharp-fruited SCLERAN'THUS *polycar'pos*? Empalements widely expanded when ripe, thorny. Stem ſomewhat woolly.—

Said to have been found at Broomholm, near Longholm, Eſkdale. LIGHTF.—The deſcription communicated to Mr. L. *See Fl. ſcot. p.* 1135, accords with that in the *Amœn. acad.* ST.

613. SAPONA'RIA. Soapwort.

EMPAL. *Cup* 1 leaf; tubular; with 5 teeth; permanent.

BLOSS. *Petals* 5; *claws* narrow; angular; as long as the cup; *border* flat; *limbs* broader towards the end; blunt.

CHIVES. *Threads* 10; awl-ſhaped; as long as the tube of the bloſſom; every other chive fixed to the claws of the petals; 5 of them ſhedding their duſt later than the others. *Tips* oblong; blunt; fixed ſideways to the threads.

POINT. *Seed-bud* ſomewhat cylindrical. *Shafts* 2; ſtraight; parallel; as long as the chives. *Summits* ſharp.

S. VESS. *Capſule* as long as the cup; cylindrical; of 1 cell; covered.

SEEDS many; ſmall. *Receptacle* looſe.

ESS. CHAR. *Empalement* 1 *leaf; naked, (that is without ſcales at the baſe.) Petals* 5; *with claws. Capſule oblong*; 1 *cell.*

common SAPONA'RIA *officina'lis*. Empalements cylindrical. Leaves egg-ſpear-ſhaped.—

Curt. ii. 17.—*Fl. dan.* 543.—*Dod.* 179, *repr. in Lob. obſ.* 170. 2, *Ger. em.* 444, *and cop. in Park.* 641. 1, *and H. ox.* v. 22. 52.—*Blackw.* 113.—*(Fuchſ.* 780, *cop. in J. B.* iii. 346, *and Lonic.* i. 76. 3, *a totally different plant.)*

Leaves.

Leaves ſitting, oppoſite, 3-fibred. *Empalements* coloured. WITH. —*Flowers* terminating. *Bloſſoms* fleſh-coloured, or white.

Bruiſewort.

Meadows and hedges. On Black Heath. Near Morden College, Kent. [Norfolk, not unfrequent. Mr. WOODWARD.—Hedges near Hanley, Worceſterſh. Mr. BALLARD. ST.—On the brink of the river below Preſton, Lancaſhire. Mr. SAVILLE.]

P. July. Aug.

The whole plant is bitter. Bruiſed and agitated with water it raiſes a lather like ſoap, which waſhes greaſy ſpots out of cloaths. A decoction of it applied externally cures the itch. The Germans uſe it inſtead of Sarſaparilla in venereal complaints. M. Andry, of Paris, cures virulent Gonorrhœas, by giving half an ounce of the inſpiſſated juice daily. WITH.

A horſe refuſed it. ST.

β. *hybrida*. A ſingular variety like another *Peloria Antirrhini*, in which it changes into a kind of *Gentian*, with a bloſſom of 1 petal. hollow leaved

Found by Gerarde, in a wood called the Spinnie, near Lichbarrow, in Northamptonſhire; but Morton informs us it is no longer to be met with there, not being capable of propagating itſelf by ſeed. It is poſſibly, however, ſtill preſerved in the gardens of the curious. It ſeems to be a mule produced between the Saponaria and the Gentiana, the duſt of the latter falling upon the pointals of the former. LINN.

2. *Leaves* running into 1. *Bloſs.* whitiſh, of a pale fleſh-colour at the edge. RAY.—*Leaves* egg-ſhaped, thoſe beneath the flowers ſtem claſping. *Empalement* ſheath-like, ragged at the mouth. *Bloſs.* twice as long, with a number of ſhort teeth, accompanied ſometimes with green leaves. Specimens from the herbarium of C. B. and Mr. Hudſon. HALL.

Ger. 353, *cop. in J. B.* iii. 521. 2, *and H. ox.* v. 53.—*Park.* 641.

Saponaria concava anglica convoluto folio. Park. 641.—*Gentiana concava. Ger. em.* 435. (ST.)

614. DIAN'THUS. Pink.

EMPAL. *Cup* cylindrical; tubular; ſcored; permanent; with 5 teeth at the mouth, and encompaſſed at the baſe with 4 ſcales, 2 of which are oppoſite, and lower than the other 2.

BLOSS. *Petals* 5; *claws* as long as the cup; narrow; fixed to the receptacle; *limbs* flat; broadeſt towards the end; blunt; ſcolloped.

CHIVES. *Threads* 10; awl-ſhaped; as long as the cup; ſtanding wide towards the top. *Tips* oblong-oval; compreſſed; fixed ſideways to the threads.

POINT. *Seed-bud* oval. *Shafts* 2; awl-ſhaped; longer than the chives. *Summits* curled; taper.

S. VESS. *Capſule* cylindrical; covered; 1 cell; opening at the top in 4 directions.

SEEDS many; compreſſed; roundiſh. *Receptacle* looſe; 4-cornered; only half as long as the ſeed-veſſel.

ESS. CHAR. *Empalement cylindrical; of 1 leaf; with 4 ſcales at the baſe. Petals 5; with claws. Capſule cylindrical; of 1 cell.*

OBS. In ſome ſpecies the *Shafts* are but little longer than the chives; in others very long, but rolled back.

* *Flowers incorporated.*

Sweet-william DIAN'THUS *barba'tus.* Flowers incorporated, in bundles. Scales of the empalement egg-awl-ſhaped, as long as the tube. *Leaves ſpear-ſhaped.*—

Renealm. 47.—β. *Cluſ.* i. 287. 1, *repr. in Dod.* 176. 2, *Ger. em.* 598. 4.—*Ger.* 479. 4.

[Limeſtone Wall, at King's Weſton, near Briſtol. ST.]

P. June.

Deptford DIAN'THUS *Arme'ria.* Flowers incorporated, in bundles. Scales of the empalement ſpear-ſhaped, woolly, as long as the tube.—

Fl. dan. 230.—*J. B.* iii. 335. 2, *excellent, copied from an unpubliſhed figure of Fuchſius.*—*Lob. ic.* i. 448. 2, *repr. in Ger. em.* 594. 11, *cop. in H. ox.* v. 25. 20, *and Pet.* 56. 5.—*Seguier.* i. 7. 4, *flower and leaf.*—*Matth.* 579, *bloſſoms too large.*

Petals taper-pointed, with 1 or 2 teeth. LINN.—red.

Gravelly meadows and paſtures. Charlton Wood, and other places in Kent. Near Croydon. [Norfolk, frequent. Mr. WOODWARD.—

WOODWARD.—About Perſhore and Eckington. Worceſterſhire. NASH.—Near Ketley, Shropſhire, in gravel, and Clarkton Leap, near Worceſter, in marle. ST.] A July.

DIAN'THUS *prolifer*. Leaves incorporated, in heads. Scales of the empalement egg-ſhaped, blunt, without awns, extending beyond the tube.— *proliferous*

Fl. dan. 221.*—*Seguier.* i. 7. 1.—*J. B.* iii. 335. 1.—*Lob. ic.* i. 450. 1, *repr. in Ger. em.* 599. 5, *and cop. in Park.* 1338. 1.—*H. ox.* v. 25. 21, *ſingle head.*

Stem uſually ſimple, upright, ſlender. *Leaves* in pairs at each joint, awl-ſhaped. *Heads* on the ſummit of the ſtem. *Flowers* nearly concealed by the ſcales of the empalement, opening one at a time for a conſiderable time in ſucceſſion. Mr. WOODWARD.—*Bloſſoms* red, ſometimes white. They expand about 8 in the morning, and cloſe about 1 in the afternoon.

Childing Sweet Williams. Childing Pinks.

Sandy meadows and paſtures. Selſey Iſland, Suſſex. [Near Norwich. Mr. WOODWARD.—In a marle pit Landridge Hill; Hanley Caſtle, Worceſterſh. Mr. BALLARD.] A. July.

Cows and Sheep eat it.

** *Flowers ſolitary; ſeveral on the ſame ſtem.*

DIAN'THUS *Caryophyl'lus*. Flowers ſolitary. Scales of the empalement nearly egg-ſhaped, very ſhort. Bloſſoms ſcolloped.— *Carnation*

Blackw. 85.—*Dod.* 174. 3, *repr. in Ger. em.* 590, *and Swert.* ii. 18. 7.

Carnation. Clove Pink. Clove July Flower.

β. HUDS. *Ger.* 591. 1.—*Ger.* 474. 2.†—*Pet.* 56. 1.

Caryophyllus ſimplex, flore minore pallide rubente. R. *ſyn.* 336. (ST.)

Common Pink. RAY.—*Single Red Pink.* GER. *em.* ST.

Old walls. Rocheſter, Deal, Sandown, and other caſtles, plentifully. RAY. HUDS. P. July.

DIAN'THUS *deltoi'des*. Flowers ſolitary. Two ſcales to each empalement, ſpear-ſhaped. Bloſſoms ſcolloped. LINN.—*Scales egg-ſhaped, taper-pointed.* LYONS. ST. *maiden*

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* Bloſſoms too large. Mr. WOODWARD.

† This is referred by C. B. to his *Caryophyllus ſimplex, flore minore pallide rubente*, which Mr. Hudſon makes a variety of *D. Caryophyllus*. But, to omit other marks of diſtinction, the leaves of the *Red Pink* are microſcopically ſerrated, thoſe of the *D. Caryophyllus* quite entire. ST.

Fl. dan.

Fl. dan. 577.—*Cluſ.* i. 285. 1, *repr. in Lob. ic.* 444. 1, *Ger. em.* 593. 6, *and cop. in Pet.* 56. 2.—*J. B.* iii. 329. 4.—*(Ger.* 477. 10, *ſeems to be D. Glaucus.)*

Root ſlender, long, with a few fibres. *Barren ſtems* numerous, reclining, throwing out roots; *flowering ſtems* 6 to 8 inches high, cylindrical, ſlender, weak, jointed. *Leaves* very narrow, in oppoſite pairs, embracing the ſtem; thoſe of the barren branches narrower, not much pointed. *Flowers* 2 or 3 on a ſtem. *Bloſſoms* reddiſh, with a ring of deeper coloured dots ſurrounding the eye. *Seeds* chaffy, brown. It flowers during the ſummer and till autumn. RAY.—*Leaves* greener, ſomewhat hairy, like thoſe of Hyſſop, but ſmaller. *Empal.* ſcales taper-pointed, (cuſpidatæ.) *Flowers* appearing later than thoſe of *D. glaucus*, that is, about June and July, at which time the *glaucus* is out of bloſſom. *Bloſſoms* of a deeper colour. DILL. Mr. WOODWARD.—With numerous ſilvery dots, which the *D. glaucus* has not. *Empal.* ſcales much more taper-pointed than thoſe of *D. glaucus*. DILL.—*Root* yellowiſh, knotted, fibrous. *Stem* reclining, a foot or ſomewhat higher, cylindrical, with a very fine downineſs, forked; joints ſwoln. *Leaves* ſitting and growing together at the baſe, awl-ſhaped, rather pointed, very entire, of a pleaſant green, downy, or ſmooth, 6 to 7 lines long, ſcarcely 1 line broad. *Fruit-ſtalks* round, downy, from the ends of the ſtem and branches. *Empalement* of a greeniſh yellowiſh tinge. *Flowers* 10 to 11 lines diameter. *Petals* inverſely egg-ſhaped, blunt, ſerrated, with dark purpliſh teeth near the mouth, and beſet with white ſilvery points with hairs proceeding from them; borders nearly ½ inch long, and 3 lines broad. POLLICH.—*Stem* uſually upright, ſquare above with ſharp angles, below nearly cylindrical, ſimple, or branched, ſlightly downy. *Leaves* ſtrap or awl-ſhaped, not acutely pointed, nearly as long as the joints, preſſed to the ſtem, ſlightly downy. *Fruit-ſtalks* frequently 2 from the ſame knot, each bearing a ſingle flower. *Empal.* ſcales, the 2d pair, which is often below the 1ſt, nearly awl-ſhaped. *Petals* toothed, bright crimſon above, ſometimes pale underneath. Mr. WOODWARD.—*Stem* cylindrical, aſcending, knotty, forked, ½ a foot high. *Leaves* oppoſite, ſtrap-ſhaped, keeled, ſhorter than the joints. *Fruit-ſtalks* terminating, with a ſingle flower. *Scales* 2, concave. *Petals* toothed, purple. LYONS.—*Bloſſoms* always red.

Maiden Pink.

Sandy meadows, paſtures, and heaths. Near Nottingham, on the road to Lenton, in Bedfordſhire. Mantham Hill, not far from Slough, near Windſor; Hilderſham, Cambridgeſhire; Bridgenorth, Shropſh. near G. Strickland, Weſtmoreland; and about Hampton Court Park. RAY.—Dupper's Hill, near Croydon. HUDS.—

Huds.—Near White-wood Ghmblingay, Cambridgeſhire. Relh. King's Park, Edinburgh. Lightf.—[Cley, Norfolk, and Chedder Rocks, Somerſetſhire. Mr. Crowe.—Near Bury, Suffolk. Mr. Woodward.—Hills between Bakewell and Chatſworth. Mr. Whately.—Sand banks near Wollerton, Nottinghamſhire, on the road from Derby to Nottingham. Mr. Saville.]—P. Linn. Mr. Saville.—B. Huds. June, July, and ſometimes in full flower in Sept. Mr. Woodw. and even in Oct. Mr. Saville.]

Cows, Horſes, Sheep, and Goats eat it. Swine refuſe it.

β. Huds. St.

Dill. elth. 298. 384. Huds. St.

My ſpecimens from gardens. With. St.

Dianthus glaucus. Linn. (St.) which ſee.

DIAN'THUS *glau'cus.* Flowers moſtly ſolitary. Four ſcales to each empalement, ſpear-ſhaped, ſhort. Bloſſoms ſcolloped, Linn.—Scales of the empalement ſometimes 2. Dill. Willich. *mountain*

Dill. elth. 298. 384. Linn. Mr. Woodward. St. With.—*(Dill. elth.* 298. 385, *and Pluk.* 81. 3,* *according to Mr. Hudſon, but the figure of Dill. is made by Linnæus a variety of D. virgineus; and that of Pluk. which is referred by Mr. Hudſon, in his 1ſt edit. to D. arenarius, appears, from the ſcales of the empalement being repreſented as long as the empalement, to be D. alpinus. Plukenet's figure ſhould ſeem to have been taken from Du Bois's ſpecimens.)*

Bloſſoms white, with a tinge of green, and, on the upper ſurface, with a tinge of purple from a number of very fine lines, and, about the middle of the petals, ſurrounded with an elegant purple circle. Dill. St.—So nearly allied to *D. deltoides*, that they are difficultly diſtinguiſhed, except in ſize and colour. *Stem* longer, more upright. *Bloſſoms* greeniſh underneath, above white, with a toothed ſcarlet circle. *Tips* bluiſh. Linn.—*Bloſſoms* white, with a purple eye. In other reſpects differs very little from the *D. deltoides*. Lightf. St.—The ring is double, both toothed, the inner pale, the outer broader and ſcarlet. Willich.—*Stem* and *leaves* covered with a microſcopical woollineſs. *Stem* rather angular. *Fruit-ſtalks* ſolitary, or in pairs. *Scales of the empalement* in 2 oppoſite pairs, ſkinny at the edges, the 2 inner ones the largeſt. *Empal.* teeth ſkinny at the edges, pointed. *Petals* ſerrated at the ends, white, but ſtained with pink at the baſe of the limbs. *Tips* grey. *Summits* white, woolly. *Receptacle* nearly as long as the S. veſſel. Accords with the Linnæan character and ſynonyms. With. St.

* Does not this ſynonym belong rather to *D. alpinus?* With.

St.—The *D. deltoides* and *glaucus*, (*Fl. dan.* 577, *and Dill. t.* 394,) ſeem to be one and the ſame plant, liable to a variety in the number of the ſcales of the empalement, and the *Armeriæ ſpecies flore in ſummo caule ſingulari. R. ſyn.* 336, which Mr. Hudſon has, I think erroneouſly, referred to the *D. glaucus*, I am inclined to believe, will prove to be the *D. virgineus*, or a diſtinct ſpecies.—*Dill. t.* 298. *f.* 385, referred to by Mr. Hudſon, and conſidered by Linnæus as a variety of *D. virgineus*, correſponds with a ſpecimen from the botanic garden of my friend, Mr. Saville, who received it from Mr. Sole, of Bath, for the *true Chedder Pink*. St.—*Armeriæ ſpecies flore in ſummo caule ſingulari. R. ſyn.* 336, which is deſcribed by Ray as "very different from the *Maiden Pink*, and more truly "anſwering the name, having but a ſingle flower on the top of "the ſtalk," cannot ſurely be the *D. glaucus*. St.)

Mountainous ſituations. North of England. Mr. Du Bois Pluk. —King's Park, Edinburgh; but Mr. Yalden was of opinion that the *D. deltoides* was the only ſpecies in the neighbourhood of Edinburgh. Lightf.—Chedder Rocks, Somerſetſhire. Mr. Brewer, in R. ſyn.—[But ſpecimens received by Mr. Crowe, from Chedder Rocks, where he was aſſured no other ſpecies grew, proved to be *D. deltoides;* but, I have been aſſured by others, that they have received what was by no means the *D. deltoides* from Chedder Rocks. Mr. Woodward.] P. June. July.

**** Stem herbaceous; ſupporting a ſingle flower.*

ſingleflowered DIAN'THUS *arena'rius*. Stem with generally 1 flower. Scales of the empalement egg-ſhaped, blunt. Petals with many clefts. Leaves ſtrap-ſhaped.—

Cluſ. i. 282, *repr. in Dod.* 176. 3, *Ger. em.* 594. 12, *and cop. in Park. par.* 315. 5, *and H. ox.* v. 25. 11.

Empalement of a dull lake colour. *Bloſſoms* pale purpliſh red, more or leſs mottled with white. With.

Caryophyllus virgineus. Ger. em. 594. With.

Common Pink.

On old walls. P. July. Aug.

The above character and ſynonyms are inſerted on the authority of Mr. Hudſon, who prefixes an aſteriſk, implying, that it is ſuppoſed to be a naturalized plant, calling it the *Common Pink*. Now the *Red Pink*, the *D. damaſcenus*, of Miller, he had already given as a variety of *Caryophyllus*, and the *Pleaſant-eyed Pink* is the *D. plumarius*. I muſt, therefore, own, I do not know what Mr. Hudſon means by his *Common Pink*. Mr. Lightfoot has alſo inſerted it on the authority of Sibbald, but he afterwards doubts whether the *D. deltoides* had not been miſtaken for it. St.

Order

Order III.

TRIGYNIA; III. POINTALS.

615. CUCU'BALUS. Campion.

EMPAL. *Cup* 1 leaf; tubular, (or globular, WITH.) with 5 teeth; permanent.

BLOSS. *Petals* 5; *claws* as long as the cup; *border* flat; *limbs* generally cloven; not crowned by a honey-cup.

CHIVES. *Threads* 10; awl-ſhaped; every other thread fixed to the claws of the petals; 5 of them ſhedding their duſt later. *Tips* oblong.

POINT. *Seed-bud* rather oblong. *Shafts* 3; awl-ſhaped; longer than the chives. *Summits* downy; oblong; bending towards the left.

S. VESS. *Capſule* covered; tapering; with 3 cells; opening at the point in 5 different directions.

SEEDS many; roundiſh.

ESS. CHAR. *Empalement inflated. Petals* 5; *with claws*; *not crowned at the mouth. Capſule with* 3 *cells.*

CUCU'BALUS *baccif'erus*. Empalements bell-ſhaped. Petals diſtant. Seed-veſſels coloured. Branches ſtraddling. *berry bearing*

Silene baccifera, which ſee.

CUCU'BALUS *Be'hen*. Empalements nearly globular, ſmooth, with a net-work of veins. Capſules with 3 cells. Bloſſoms almoſt naked.— *Bladder*

J. B. iii. 356.—*Pet.* 57. 2.—*Blackw.* 268.—*Cluſ.* i. 293. 2, *repr. in Dod.* 172, *Lob. obſ.* 184. 1, *Ger. em.* 678. 2, *and cop. in Park.* 263, *and Ger.* 550. 2.—*Trag.* 130, *cop. in Lonic.* ii. 33.—*H. ox.* v. 20. 1.

Empalement ſometimes without veins, when it appears white. GMEL.—*Stem* panicled. *Leaves* ſoft, oppoſite, egg-ſpear-ſhaped. *Flowers* nodding. *Empalement* egg-ſhaped, inflated, longer than the claws of the petals. *Chives* ſomewhat longer than the petals. *Seed-bud* ſupported by a column with 10 corners. *Seed* prickly. RELH.—*Capſule* opening in 6 directions. LEERS. ST.—Each of the valves generally ſplitting into 2 teeth, though ſometimes 5 and 7.

Empalement

Empalement before the expanſion of the bloſſom oblong, pointed at the end; when the bloſſom is expanded globular-egg-ſhaped, whitiſh, with browniſh purple veins; when the bloſſom is ſhrivelled globular-bell-ſhaped. *Petals*, no appearance of honey-cup teeth. *Tips* yellowiſh. *Duſt* greeniſh dirty yellow. St.—*Stem* forked at the top. *Leaves* heart-ſpear-ſhaped, not properly united, beſet on each ſide with numerous minute pimples, oppoſite; *flower-leaves* at the forks of the ſtem frequently tinged with purple. *Flowers* at the ends of the branches, crowded, ſome on long fruit-ſtalks. *Tips* green. *Empal.* veins green. Mr. Woodw.—*Plant* free from hairs. *Stem* branched, joints large. *Leaves* ſpear-ſhaped, ſitting. *Flowers* terminating. *Empalement* egg-ſhaped. *Petals*, claws broadeſt at the top. *Summits* not downy. With.—*Leaves* ſea-green, ſmooth, oval-ſpear-ſhaped. *Flowers*, ſome ſolitary at the diviſions of the ſtem, others crowded at the ends of the branches. *Empalement* bellying, inflated, with green or purple veins. *Petals* diſtant; *claws* with projecting edges, forming a kinds of ears, analogous to thoſe of the *Silene*, thus forming the link of connection between *Silene* and the reſt of the *Cucubalus*. Hall. St.—*Leaves* ſometimes fringed with prickle-like hairs, as in *Silene amœna*, and ſometimes with a few ſhort hairs ſcattered over the ſurface. Young *ſhoots* ſometimes hairy. *Empal.* veins purpliſh, or green. *Chives*, 5 of them fixed to a glandular honey-cup at the bottom of the flower, and ſhedding their duſt ſooner than the other 5, which are fixed to the petals. St.

Spatling Poppy. White Bottle. Bladder Campion.

Corn field, and dry meadows and paſtures.

P. [June. With. and] July. Auguſt.

The leaves boiled have ſomething of the flavour of peaſe, and proved of great uſe to the inhabitants of the iſland of Minorca, in the year 1685, when a ſwarm of locuſts had deſtroyed the harveſt. The Gothlanders apply the leaves to eryſipelatous eruptions.

Horſes, Cows, Sheep, and Goats eat it. Linn.—A Horſe refuſed it. St.

2. Leaves rough. Huds.

Spaniſh CUCU'BALUS *Otites*. Chives and pointals on different plants. Petals ſtrap-ſhaped, undivided. Linn. —*Sometimes with chives and pointals*. St.

Fl. dan. 518.* *a. the flowers of the fertile plant, b. thoſe of the barren plant.*—*Cluſ.* i. 295. 1, *repr. in Ger. em.* 593. 1. *a. fertile plant, b. barren*

* Root-leaves 4 times as broad as they are in a wild ſtate. Probably from a garden ſpecimen. Mr. Woodward.

b. barren plant, cop. in J. B. iii. 350. 2, *and Pet.* 57. 11, *in which a. and b. are reverſed, and the fertile plant cop. in Ger.* 396. 1, *and H. ox.* v. 20. 5, *leaves in all too large.*

Root long, ſpindle-ſhaped. *Stems* ſeveral. *Root-leaves* wedge-ſhaped, tapering downwards into leaf-ſtalks, forming a thick tuft. *Stem-leaves* oppoſite. *Empalement* marked with green lines. *Petals* ſtrap-ſhaped, narrow, quite entire, ſomewhat bowed in at the point; of a yellowiſh whitiſh green. POLLICH. Mr. WOODW. —*Leaf-ſtalks* long, channelled. *Stem* ſometimes ſingle, the lower part with a few leaves, above naked and clammy. *Flower-leaves* ſomewhat membranaceous, growing together at the baſe, 2 under each ſet of fruit-ſtalks. *Capſules* oblong-elliptical. The *barren plants* bear more flowers, and in cloſer panicles than the *fertile* ones. I have examined many hundred plants, but never met with one with chives and pointals in the ſame empalement. Mr. WOODWARD.—*Flowers* on fruit-ſtalks in whorls on the ſtem and branches, in the ſpecimens examined with chives and pointals. POLLICH. ST.—In other ſpecimens, as deſcribed by Linnæus. *Seed-bud* oblong, ſcored, crowned by a glandular ſubſtance, ſimilar to the receptacle of the *Umbelliferæ*. *Shafts* 2. ST.—*Bloſs.* pale green, or white. *Root-leaves* lying in a circle on the ground.

Gravelly paſtures. Gravel pits on the north ſide of Newmarket, and between Barton Mills and Thetford, Norfolk. [Near Swaffham and Narborough, Norfolk. Mr. WOODWARD.

P. July. Auguſt.*

CUCU'BALUS *acau'lis*. Sp. pl. ed. i. HUDS. ed. ii. *moſs*

Silene acaulis, which ſee.*

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* *Cucubalus viſcoſus.* It is time this plant was excluded from our Flora. There can be little doubt but Ray's plant was the *Silene nutans*, which has been found on Dover cliffs; and, I am informed, has been received from thence by Mr. Lightfoot, under the name of *C. viſcoſus*; and, from Ray's account of it, it appears, that the Dover plant was not much unlike the Nottingham one, differing in nothing material but the degree of clammineſs, whereas the plant figured in *Tourn. voy.* 361, is extremely unlike that deſcription, and has not the moſt diſtant reſemblance to *S. nutans*; and, in the *Syſt. veg.* the ſynonym of Ray is directed to be eraſed. Mr. WOODWARD.—Retzius, however, in his obſ. iii. 52, ſays, he cultivates the *Lychn. maj. noctiſl. Dubronſis peren. R. ſyn.* in his garden, and finds it to be only a ſlight variation of *Cucubalus italicus*. ST.

No doubt Retz. has got a wrong plant under Ray's name. Reading in Ray it could not be a Cucubalus.

616. SILE'NE. Catchfly.

EMPAL. *Cup* 1 leaf; tubular; with 5 teeth; permanent.
BLOSS. *Petals* 5; *claws* narrow; as long as the cup; bordered; *limb* flat; blunt; frequently cloven. *Honey-cup* compoſed of 2 little teeth at the neck of each petal, and conſtituting a crown at the mouth of the tube.
CHIVES. *Threads* 10; awl-ſhaped; every other thread fixed to the claws of the petals; and ſhedding their duſt later. *Tips* oblong.
POINT. *Seed-bud* cylindrical. *Shafts* 3; ſimple; longer than the chives. *Summits* bending to the left.
S. VESS. *Capſule* cylindrical; covered; with 3 cells, opening at the point in 5 different directions.
SEEDS many; kidney-ſhaped.
ESS. CHAR. *Empalement bellying. Petals* 5; *with claws; with a crown at the mouth. Capſule with* 3 *cells.*

* *Flowers ſolitary; lateral.*

Engliſh SILE'NE *anglica.* Hairy. Petals nicked at the end. Flowers upright. Fruit on reflected, alternate fruit-ſtalks. LINN.—Petals generally quite entire. Flowers upright, nearly ſpiked. Fruit-ſtalks of the fruit between ſtraddling and bent back. HUDS.—*Lower Capſules only bent back.* Mr. WOODWARD. ST.

Curt. iv. 45.—*Dill. elth.* 309. 398.—*(Vaill.* 16. 12, *is S. gallica.)*

Petals not ſcolloped. *Lower-leaves* inverſely egg-ſpear-ſhaped, fringed towards the baſe. *Empalement* not hairy, but the angles hedge-hogged with reflected prickles hardly perceptible. LINN.—*Petals* blunt, ſometimes nicked. *Fruit* when ripe bent downwards horizontally, not pendant, angular, clammy, hairy. HUDS—*Leaves* ſpear-ſhaped. *Flowers* from the boſom of the leaves, hairy, clammy. *Petals* entire, or nicked. CURT. ST.—*Stem* branched. *Empalement* as hairy as the reſt of the plant. *Upper Capſules* upright, and nearly ſitting. Mr. WOODWARD. ST.—*Empalement* thick ſet with ſhort hairs, terminated by globular glands, and the 10 ribs with long expanding hairs. Mr. Curtis's figure accords with this, but by no means does the Linnæan deſcription. *Petals*, 2 ſtrap-ſhaped teeth at the baſe of the limbs. ST.

Small Corn Campion, with a very ſmall white flower. RAY.

Sandy

Sandy corn fields. Near the Devil's Ditch, Cambridgeſhire. In Eſſex. About Coombe Wood, Surry; and near Newport in the Iſle of Wight. A. June. July.

SILE'NE *quinquevul'nera*. Petals very entire, roundiſh. Fruit upright, alternate.— *variegated*

(Cluſ. i. 290. 1, *repr. in Lob. obſ.* 183. 1, *ic.* i. 339. 1, *Ger. em.* 470. 5, *and cop. in Park.* 639. 6, *H. ox.* v. 21. 35, *and Ger.* 383. 5, *expreſſes the general habit, but the petals are repreſented as having* 3 *teeth, an error which the accurate Cluſius would hardly overlook.)*

Empalement of the fruit upright, hairy, clammy. *Petals* blunt, ſcarcely nicked, very entire at the edge, purple, with a white margin. LINN

Sandy corn fields about Wrotham, Kent. A. July.

It is cultivated in our flower borders. ST.

** *Flowers lateral; crowded.*

SILE'NE *nu'tans*. Petals cloven. Flowers lateral, pointing one way, bowed downwards. Panicle nodding.— *Nottingham*

Fl. dan. 242,* *ſegments of the petals repreſented as ſpear-ſhaped, pointed, inſtead of ſtrap-ſhaped.—Cluſ.* i. 291. 1, *repr. in Ger. em.* 470. 8, *and cop. in Park.* 631. 5.

Stem ſimple, cylindrical, a foot high, with 3 joints below the panicle of flowers, beſet with clammy hairs. *Leaves* ſpear-ſhaped, with ſhort hairs. *Root-leaves* on ſhort leaf-ſtalks, forming a cloſe turf. *Petals* white, narrow, cloven more than half way down; ſegments ſcolloped at the end, rolled inwards in the day time. *Claws* of the bloſs. twice as long as the cup. *Chives* white, twice as long as the claws of the petals. *Shafts* 3, white, as long as the chives. LINN. —*Stem* frequently branched from the root. Mr. WOODWARD.

Mountainous meadows. Walls of Nottingham Caſtle. [Rocks in Dovedale, Derbyſhire. Mr. WOODWARD.—Near Gloddaeth, Caernarvonſhire. PENN. *Wales.*] P. June. July.

Sheep, Horſes, Goats, and Swine eat it. Cows refuſe it.

SILE'NE *amœ'na*.† Petals cloven. Crown ſlightly joined together. Flowers pointing one way. Fruit-ſtalks oppoſite, with 3 flowers. Branches alternate.— *ſea*

Fl. dan.

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* Leaves too large. Flowers not ſufficiently nodding, Flowering branches too ſhort. Mr. WOODWARD.

† It does not accord with Linnæus's deſcription of *S. amœna*. Mr. WOODW. WITH. ST.—The empalement is neither hairy, nor has it 10 angles. WITH.

Fl. dan. 857.*—*Lob. adv.* 143, *repr. in Ger. em.* 469. 2, *and cop. in Ger.* 382. 2, *Park.* 639. 3 *and* 4, *J. B.* iii. 357. 1, *Pet.* 57. 1, *and H. ox* v. 20. 2.

Stems ſpreading, rather ſmooth and aſcending. *Branches* ſtraddling, ſhort. *Leaves* ſmooth upon the upper ſurface. The angles of the *empalement* 10, purple and woolly. *Petals* white, cloven ½ way down. LINN.—*Stems* ſmooth, trailing, 6 to 12 inches high. *Flowering branches* aſcending. *Leaves* ſpear-ſhaped, growing together at the baſe, ſmooth, 1 or 2 inches long, ¼ broad. *Flowers* on ſhort fruit-ſtalks, from 1 to 3 at the end of each of the flowering branches, much reſembling thoſe of *Cucubalus Behen*. *Empal.* veins generally purple. *Petals* deeply cloven, ſegments oval, beneath which are 2 prominent teeth. *Tips* deep purple. Differs from *Cucubalus Behen* in the preſence of the crown at the mouth of the bloſſom, and in the leaves not being heart-ſhaped at the baſe. Mr. WOODWARD.—*Leaves* ſpear-ſhaped, fringed. *Flowers* altogether ſimilar to thoſe of *Cucubalus Behen*, except that the veins of the *empalement* are leſs diſtinct, and that the claws of the petals are extended into ear-like teeth. HALL. ST.—*Stem* weak and ſlender. *Leaves of the barren branches*, and the *lower ones of the ſtem* generally ſtrap-ſpear-ſhaped, fringed with prickle-like hairs; *thoſe of the upper part of the ſtem* egg or egg-ſpear-ſhaped, taper-pointed, 3 or 4 times as broad as the reſt. *Flowers* often ſolitary, and frequently only 1 on a ſtem, terminating and lateral, the terminating one ſolitary, generally over-topping the lateral flowering branches; the reſt at the end of 2 lateral flowering branches, with 2 leaves at their baſe. It retains its habit and characters when cultivated. In one plant, *ſhafts* and *cells* 5. This ſpecies evinces how little eſſential difference there exiſts between *Cucubalus*, *Silene*, and *Lychnis*. ST.—*Leaves* oppoſite, ſpear-ſhaped, edges tranſparent, ſerrated with very minute prickles. *Flowers* on long fruit-ſtalks from the boſom of the leaves, or terminating. *Empal.* ſemi-tranſparent, with a net-work of veins. *Petals*, edge very entire, white, each with 2 ſmall plaits at the ſummit of the claw. *Seed-bud* oblong, mulberry-coloured, with a green glandular ſubſtance at the top. *Shafts* ſometimes 5. *Seeds* fixed on ſhort pedicles to the receptacle. *Receptacle* looſe. WITH.

ST.—Neither can it with propriety be arranged under the diviſion of "Flowers "lateral, crowded," and, if the *S. amœna*, as, from the ſynonyms it ought to be, it is ſurely remarkable that the circumſtance of "empalements ſmooth, "with net-work veins," which is applied to *S. Behen*, as well as *C. Behen*, ſhould have been omitted. ST.

* Is this plant beyond a doubt. Mr. WOODWARD. ST.

Sandy

Sandy places on the ſea coaſt. [Southwold, Suffolk. Mr. CROWE.—Wells, Norfolk. Mr. WOODWARD.—Coaſt of Wales. Mr. SAWYER.—Portreath, near Hayle, Cornwall. Mr. WATT.]

P. June. July.

β. HUDS. Leaves broader. RAND.

*** *Flowers growing from the forks of the ſtem.*

SILE'NE *conoi'dea.* Empalements of the fruit globular taper-pointed, with 30 ſcores. Leaves ſmooth. Petals entire. LINN. HUDS. ST. *corn*

Cluſ. i. 288. 2, *repr. in Lob. obſ.* 183. 2, *ic.* i. 339. 2, *and Ger. em.* 470. 7, *and cop. in J. B.* iii. 349. 4, *Park.* 631. 4, *and H. ox.* v. 21. 33. LINN. ST.*—*(Lob. ic.* i. 338. 2, *repr. in Ger. em.* 470. 6, *and cop. in Park.* 633. 11, *and abridged in J. B.* iii. 350. 1, *with the addition of a branch in fruit, is the figure referred to by Dill. in R. ſyn. under Lychn. ſylv. anguſtifol. &c. C. B. referred by Hudſon to S. concidea, but by Linnæus to S. conica.)*

Stem beſet with clammy hairs. *Leaves* ſpear-ſhaped, ſmooth. *Empal.* ribs rough with hair. *Capſules* globular, with a cylindrical beak. *Petals* ſmall, undivided, entire. *Honey-cups* with 3 cleſts, pointed, and with a tooth beſides on each ſide at the baſe of the bloſſom. LINN.—*Leaves*, edges and mid-rib underneath downy, and ſometimes alſo the whole of the leaf. *Stem* downy below, clammy above, being beſet with hairs terminated by globular heads. *Empalements* rounded at the baſe, clammy, beſet with ſhort cloſe hairs, interſperſed with longer ones. In the *S. conica* the *empalement* is lopped at the baſe, and the *whole plant* is beſet with a ſhort thick down, without any longer hairs intermixed, and not clammy. ST.

Sandy corn fields. A little to the north of Sandown Caſtle, plentifully. Mr. J. SHERARD and Mr. RAND. *R. ſyn. ed.* iii.

A. June. July.

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* Theſe are the figures which Linnæus refers to his *S. conoidea*, and with theſe, as well as with the deſcription of *S. conoidea*, my ſpecimens from the London Botanic Garden accord. Mr. Hudſon, indeed, gives to the *S. conoidea*, the ſynonyms which Linnæus has referred to the *S. conica*, but he mentions no place of growth, except on the authority of R. ſyn. It is poſſible that the *S. conica* and *conoidea* may be both native ſpecies. In Dr. Withering's herbarium I have found a ſpecimen of *S. conica*, which he believes to have been of native growth, and which exactly correſponds with the figure of it in *Jacq. auſtr.* iii. 253. ST.

night flowering SILE'NE *noctiflo'ra.* Empalements with 10 angles; the teeth as long as the tubes. Stem forked. Petals cloven.—

Cam. hort. 34, *cop. in H. ox.* v. 20. 12.—(*J. B.* iii. 344. 1, *is a different plant.*)

Stem upright, hairy, clammy. *Leaves* broad-ſpear-ſhaped, hairy. *Flowers* ſolitary, on fruit-ſtalks, ſlanting, whitiſh. *Empalement* cylindrical; *thoſe of the fruit* globular-egg-ſhaped, full of ſeed, ſcored, with a net-work of veins; teeth nearly as long as the empalement. *Flower* opening in the night, ſweet-ſcented in the ſummer, but not ſo in the autumn. LINN.—Whole *plant* hairy. *Leaves* growing together at the baſe, oval-ſpear-ſhaped. *Flowers* few, in the boſom of the upper-leaves, and terminating, moſtly nodding. *Seed-veſſel* upright. Mr. WOODWARD.

Corn fields. Between New-market and Canvaſs-hall in Wood-ditton. About Norwich. [Sandy fields, Norfolk, frequent. Mr. WOODWARD.] A. July.

Pheaſants are fond of the ſeeds.

common SILE'NE *Arme'ria.* Flowers in broad-topped bundles. Upper-leaves heart-ſhaped, ſmooth. Petals entire.—

Fl. dan. 559.—*Cluſ.* i. 288. 1, *repr. in Dod.* 176. 4, *and Lob. obſ.* 242. 3, *and cop. in H. ox.* v. 21. 26.—*Ger.* 481. 2.

Whole *plant* ſmooth. *Stem* upright, upper joints of the ſtem clammy. *Leaves* oblong, the upper heart-ſhaped. *Flowers* terminating, the ends of the branches ſub-dividing into forks, the forks cloſe together. *Petals* nicked at the end; *teeth* of the crown taper-pointed, open. LINN.—*Stem* forked. *Leaves* ſea-green, oppoſite. *Floral-leaves* very ſmall, 2 at each diviſion of the bundle of flowers. *Empalement* with 10 ſcores; teeth very ſmall, and ſkinny. *Petals* pale red, ſlightly notched at the end; *teeth* of the crown long. *Chives*, every other ſhorter and ſhedding its duſt later. *Tips* pale purpliſh blue. *Shafts* white. WITH.—*Empalement* ſomewhat belly-ing upwards. *Bloſs.* claws whitiſh green, border and teeth purpliſh roſe-colour; teeth half as long as the border. *Petals*, *Chives*, and *Pointal* fixed to the ſummit of a green columnar receptacle, half as long as the empalement. ST.

Corn fields, and old walls. Banks of the River half a mile below Cheſter. A. July. Aug.

berry bearing SILE'NE *baccif'era.* Empalements bell-ſhaped, deeply cloven. Stem branching. Flowers ſolitary, at

at the forks of the branches. Petals cloven, diſtant. St.*

Mill. 112.—*Cluſ.* ii. 183. 2, *repr. in Dod.* 403, *Lob. obſ.* 136. 3, *Ger. em.* 614. 13, *and cop. in Park.* 759. 1, *and J. B.* ii. 175. 1.—*Tourn.* 176, *fructification, petals ill done.*

Petals crowned, and therefore a *Silene*. Reich. *Branches* horizontal, and ſometimes ſlanting downwards. *Fruit-ſtalks* often as if broken back. *Petals* ſerrated, with little ears at the baſe of the border, ſo that it cannot with propriety arrange where Linnæus has placed it. Hall. St.—*Stems* cylindrical, roughiſh, of a pleaſant green. *Branches* oppoſite. *Leaves* egg-ſhaped, taper-pointed, running down into leaf-ſtalks, roughiſh. *Fruit-ſtalks* ſhort. *Empal.* downy. *Petals* expanding, white; *claws* very narrow; teeth at the baſe of the border, in which reſpect it ſeems to depart from the Linnæan character. Pollich. St.—*Stem* hairy. *Leaves* hairy, oppoſite, oval-ſpear-ſhaped, very entire, on ſhort leaf-ſtalks, thoſe below the branches bent down to the ſtem. *Empalement* bellying, frequently tinged with purple. Mr. Woodward.— Whole *plant* ſomewhat hairy. *Stem*, joints large; *branches* nearly horizontal. *Leaves* in pairs at the joints. *Flowers* nodding. *Empalement* egg-ſhaped. *Petals*, when young, not ſeeming to have honey-cup teeth, but afterwards they become viſible, and are ſerrated at the ends, ſo that it is properly a *Silene*. *Capſules* with 3 partitions, but not ſufficiently projecting to ſeparate it into diſtinct cells. With.—As *Cucubalus* and *Silene* are genera merely artificial, the rules of arrangement require that it be removed to the latter genus. Tournefort, and after him Gmelin, have, in my opinion, very properly conſidered it as a diſtinct genus. Its habit is that of *Ceraſtium*, but its general ſtructure that of *Silene*. It appears to form the connecting genus. *Empalement* cloven more than half way down. *Petals* cloven; *teeth of the crown* at the baſe of the border growing to the petal, except at the outer and upper edges, oblong, ſquare, irregularly toothed at the upper edge with 2 or 3 teeth. *Capſules* at firſt of 3 cells, but the partitions being of a looſe texture, they ſoon ſhrivel up, and, ſeparating from the ſides, give the appearance of there being but 1 cell; not opening at the point as in *Silene*, *Cucubalus*, &c. St.

Berry-bearing Chickweed.

Hedges in Angleſea. P. June. July.

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* Calycibus campanulatis 5-fidis, caule ramoſo, floribus ſolitariis ex ramorum dichotomia, petalis bifidis diſtantibus. St.

****** *Stemleſs.* St.**

moſs SILE'NE *acau'lis.* Stemleſs, preſſed down. Petals nicked at the end.—

Lightf. 12. *at p.* 221.—*Fl. dan.* 21.—*Dill. elth.* 167.* 206.†—*Pona ap. Cluſ.* ii. 341. 2, *repr. in Ger. em.* 593. 8, *and cop. in Barr.* 380, *and Park.* 639. 10.—*J. B.* iii. 768.—*Pet.* 56. 4.

Foliage ſimilar to a *Bryum.* Linn.—*Capſule* of 1 cell. Hall. St.—But the veſtiges of 3 partitions appear on the inſide, as in *S. baccifera.* St.—It is indubitably a *Silene.* Mr. Woodward. Dr. J. E. Smith. St.—Forms a thick turf. *Leaves* awl-ſhaped, ſmooth, but the edges beſet with hooked teeth pointing downwards. *Flowers* ſingle, bright purple. *Fruit-ſtalks* ſometimes not ½ an inch high, but lengthening as the fruit advances to maturity, when from 1 to 2 inches long. *Petals* inverſely heart-ſhaped, with 2 ſmall teeth forming the crown. *Capſule* as long again as the empalement, ſmooth, ſhining, tinged with purple. Mr. Woodw.—*Chives* wanting in 2 plants cultivated in the Edinburgh Botanic Garden. *Leaves* fringed with ſhort prickle-like hairs, bowed backwards. *Fruit-ſtalks* with ſometimes 2 oppoſite leaves growing upon it. *Bloſſoms* purple, ſometimes pure white. St.

Mountains of Caernarvonſhire, near Llanberys; Dartmoor, Devonſh. Iſles of Mull, Rum, and Skye, Highland Mountains. [Ben Lomond. Lightf. Dr. J. E. Smith.] P. June. July.

617. STELLA'RIA. Stitchwort.

Empal. *Cup* 5 leaves; egg-ſpear-ſhaped; concave; upright; expanding; permanent.

Bloss. *Petals* 5; deeply divided; flat; oblong; ſhrivelling.

Chives. *Threads* 10; thread-ſhaped; ſhorter than the bloſſom; every other ſhorter. *Tips* roundiſh.

Point. *Seed-bud* roundiſh. *Shafts* 3; hair-like; expanding. *Summits* blunt.

S. Vess. *Capſule* egg-ſhaped; covered; with 1 cell, and 6 valves.

Seeds many; roundiſh; compreſſed.

Ess. Char. *Empalement of* 5 *leaves; expanding. Petals* 5; *divided into* 2. *Capſule* 1 *cell; many ſeeds.*

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† Mr. Woodward.—It is wanting in our copy. St.

STELLA'RIA *nem'orum*. Leaves heart-ſhaped, on leaf-ſtalks. Panicle with branching fruit-ſtalks.— *broad-leaved*

Fl. dan. 271.—*H. ox.* v. 23. 2, *cop. in Park.* 762. 1.

So nearly allied to *Ceraſtium aquat.* as with difficulty to be diſtinguiſhed from it. *Stem* a foot high. *Leaves*, under ſurface much paler than in thoſe of *Ceraſt. aquaticum*, the greater part of them on leaf-ſtalks, but few ſitting, and thoſe ſmaller only near the panicle. *Leaf-ſtalks* hairy, eſpecially on the upper ſurface. *Panicle* terminating, diſtinct, ſmooth. *Fruit-ſtalks* after flowering pendant. *Empal.* ſmooth. LINN.—Allied to, but moſt truly diſtinct from *Ceraſtium aquaticum*. *Stem* low, never climbing. SCHREB.—*Stem* once or twice forked, afterwards branched; ſmooth below, hairy above. *Leaves* oppoſite, below the diviſions of the ſtem, on leaf-ſtalks, at and above them ſitting. *Fruit-ſtalks* long, branched, hairy, each with a pair of leaves ſimilar to the ſtem-leaves. Differs from *Ceraſtium aquaticum* in having the upper part only hairy, and not clammy; the *petals* full twice as long as the empalement; the ſegments of the *empalement* more pointed, the *fruit-ſtalks* very ſlender, *ſhafts* only 3, and *ſeed-veſſel* upright. Mr. WOODW.—*Lower-leaves* heart-egg-ſhaped, the middlemoſt egg-ſhaped. *Fruit-ſtalks* ſolitary. *Empalement* even, not ribbed. In habit it reſembles *Alſine media (decaſtemon.)* ST.

Woods, moiſt hedges, and banks of rivers, in the northern counties. [By Caſterton Mill, near Kirkby Lonſdale, Weſtmorel. Dr. J. E. SMITH.—Near Kendal, ſhewn me by Mr. GOUGH, ſon of a manufacturer of that place, a *blind botaniſt*, who had loſt his ſight early in his infancy, but who, by means of touch, had learnt to diſtinguiſh plants with wonderful accuracy. The plants he was familiar with he recognized by what may be called an intuitive touch, by ſimply drawing them through his hand; with others he took more time, examining the particular parts between his fingers. ST.]

STELLA'RIA *Holo'ſtea*. Leaves ſpear-ſhaped, finely ſerrated. Petals cloven. LINN.—Leaves fringed. HALL. ST.—*With ſhort prickles, not finely ſerrated.* ST. *greater*

Curt. ii. 14.—*Walc.*—*Mill. ill.*—*Fuchſ.* 136, *cop. in J. B.* iii. 361. 2.—*Trag.* 329.—*Dod.* 563, *repr. in Lob. obſ.* 26. 2, *Ger. em.* 47, *and cop. in Park.* 1325.—*Pet.* 58. 1.—*Ger.* 43. 1.—*(Fl. dan.* 698, *has fringed leaves indeed, but the petals are divided nearly to the baſe, the lobes pointed, and has more of the habit of S. graminea than of S. Holoſtea.)*

Stem a foot high and upwards, upright, forked, knotty, the lower joints ſhorter, angular, roughiſh. *Leaves* oppoſite, ſitting,

keeled, ſmooth, hairy at the edge. *Flowers* in panicles, white. *Fruit-ſtalks* thread-like, from the boſom of the leaves, with 1 flower, longer than the leaves. *Empalement* pointed, membranaceous at the edge. *Petals* blunt, longer than the empalement. *Tips* yellow, as long as the ſummits. LYONS.—*Leaves*, hairs at the edge prickle-like, very ſhort, expanding, or bent back. *Empal.* leaves membranaceous at the edge, marked with faint longitudinal veins. *Petals*, ſegments rounded at the end. ST.—*Leaves* in pairs, at the joints of the ſtem, which are pretty near each other towards the bottom of the ſtem; the edges rolled inwards, ſet with fine prickles; mid-rib underneath beſet with ſmall prickles; above ſmooth, and marked with a hollow groove running lengthways along the middle. WITH.

Stitchwort.—Hedges and woods. P. April. May.

leſſer STELLA'RIA *gramin'ea*. Leaves ſtrap-ſhaped, very entire. Flowers in panicles. LINN.—Panicles terminating. ST.*

Gmel. iv. 61. 2.—*Pet.* 58. 3.—*Ger.* 43. 2.—*J. B.* iii. 361. 3, *not in flower.*

Stem quadrangular, lying flat, forked. *Leaves* oppoſite, ſitting, keeled. *Empalement* pointed, ſcored, ſomewhat longer than the bloſſom. *Bloſſoms* white. *Tips* fleſh-coloured. LYONS.—*Stem* weak, brittle, ſquare. *Petals* larger than the empalement, divided almoſt to the baſe. *Flower-ſcales* at the diviſions of the panicle egg-ſpear-ſhaped, white. HALL. ST.—*Stem* creeping at the baſe, above upright, or trailing to 1½ foot high, ſmooth. *Leaves* ſpear-ſhaped, tapering to a point. *Petals* almoſt as long again as the empalement. POLLICH. ST.—*Leaves* ſometimes with a woolly fringe towards the baſe. *Panicle* forked, with from 1 or 2, to 8 or 10 ſub-diviſions, with a one-flowered fruit-ſtalk at each fork; ſometimes nearly as long as the reſt of the ſtem, leafleſs. *Flower-ſcales* with a woolly fringe. *Empalement* egg-ſpear-ſhaped, tapering to a point, with 3 prominent ribs, membranaceous at the edges, the 3 outermoſt with a woolly fringe. *Petals* nearly half as long again as the empal. ſegments ſtrap-ſhaped, rounded at the ends. ST.

Horſes, Cows, Goats, Sheep, and Swine eat it.

β. HUDS.—*Pet.* 58. 2.—*Fl. dan.* 698?—*(Fl. dan.* 414, *referred to by Mr. Hudſon, is* β *of Linnæus, and does not at all accord with Ray's deſcription.)*

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* Paniculis terminalibus. If any other marks of diſtinction ſhould be wanting, it may be added, *Empalement with* 3 *ribs*; and, to the *S. Holoſtea*, Empalement without ribs. ST.

Stems

Stems ſtronger, and ſhorter; *leaves* ſtiffer, ſea-green, and *flowers* larger than *S. graminea.* It ſeems to approach nearer to *S. Holoſtea,* but it is ſmaller in all its parts. RAY.

Iſle of Ely. Near Oxford. Peckham Fields. A.

STELLA'RIA *uliginoſa.* SCHREB.—Leaves ſpear-ſhaped, very entire. Stem trailing. LEERS. ST.—Panicles lateral. ST.* *bog*

Pet. 58. 4.—*Ger.* 490. 9, *cop. in Ger. em.* 613. 8, *and H. ox.* v. 23. 8.—*J. B.* iii. 365. 2.—*(Fl. dan.* 415, *is γ Linnæus.)*

Leaves fringed at the baſe. *Fruit-ſtalks* from about the middle, and from near the end of the ſtem, in threes, from the boſom of the leaves, thicker towards the end, the 2 lateral ones dividing into 3, and bearing 3 flowers. *Flower-ſcales* ſpear-ſhaped, 2 at the baſe of the fruit-ſtalks in the boſom of the leaf. *Petals* ſhorter than the empalement, divided down to the baſe, the ſegments diſtant. *Chives,* 5 inſerted into the claws of the petals, the other 5 into as many glands, ſurrounding the ſeed-bud. LEERS. ST.—*Stems* ſeveral, from 2 to 12 inches high, ſquare; angles acute, ſmooth, weak, and ſometimes creeping at the baſe, above upright, extending beyond the panicles, but little branched; branches upright. *Leaves* ſmooth, except at the baſe, ſitting, or tapering down into ſhort leaf-ſtalks, upright. *Panicles* pointing one way, ſitting, upright, generally 2 on each ſtem; moſtly conſiſting of 3 primary branches, the outermoſt bearing a ſingle flower; the other 2, in the more luxuriant plants, dividing into forks, with a fruit-ſtalk bearing a ſingle flower at each fork; the ſhorter as long again as the ſingle fruit-ſtalk; and the 3d nearly as long again as the 2d. *Flower-ſcales* 2, at each fork of the panicle. *Empalement* ſmooth, membranaceous at the edge, generally cloſed. *Petals* white; ſegments ſtrap-ſhaped. *Shafts* ſometimes 4 and 5. ST.—*Leaves* ſitting. *Empal.* leaves ſpear-ſhaped, expanding when in flower, but afterwards cloſing upon the capſule. *Panicles* from the boſom of the leaves. *Summits* rolled back. WITH.

S. uliginoſa. SCHREB. conſp. pl. ap. ſpicileg.—*S. dilleniana.* LEERS.—*S. graminea γ* LINN. *fl. ſuec.* 393, *and Huds. fl. ang.* 190.—Lightf. *β.—Alſine longifolia uliginoſis proveniens locis. J. B.* iii. 365. *R. ſyn.* 347.—*Alſine fontana. Ger.* 490, *em.* 613.—*Alſine aquatica media. Bauh. pin.* 251.—*Alſine. Hall. n.* 882. *β.—(In Alſine Hypericifolia. Vaill.* 9, *the petals are deſcribed as entire and pointed.—Alſine. Hall. n.* 881, *deſcribed as having flowers at the ſummit of the plant, is the Stellaria aquatica of Pollich and S. dilleniana of Mœnch, which is a different ſpecies.)* ST.

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* Paniculis lateralibus. ST.

Fountain

Fountain Chickweed.—Sides of ſprings, rivulets, ditches, and boggy meadows. [Rivulets on the ſide of Malvern Hills, and on the ſide of the hill at W. end of Powick's Ham, near Worceſter. St.—Hockley Pool Dam, near Birmingham. With.—Moiſt grounds, near Leeds. Mr. Wood.] A. June.

618. ARENA'RIA. Sandwort.

Empal. *Cup* 5 leaves. *Leaves* oblong; tapering; expanding; permanent.
Bloss. *Petals* 5; egg-ſhaped.
Chives. *Threads* 10; awl-ſhaped; every other more inwards. *Tips* roundiſh.
Point. *Seed-bud* egg-ſhaped. *Shafts* 3; upright; but a little reflected. *Summits* rather thick.
S. Vess. *Capſule* egg-ſhaped; covered; with 1 cell; opening at the point in 5 different directions.
Seeds many; kidney-ſhaped.
Ess. Char. *Empalement* 5 *leaves; expanding. Petals* 5; *entire. Capſule* 1 *cell; many ſeeds.*

ſea ARENAR'IA *peploi'des.* Leaves egg-ſhaped, pointed, fleſhy.—
Fl. dan. 624.—*Pet.* 65. 9.—*Ger. em.* 622. 1.—*Park.* 281. 2, *cop. in J. B.* iii. 374. 3, *ill done if the plant.*
Glands on the receptacle. Linn.—*Bloſſoms* white.
Sea ſhore, frequent. [Yarmouth, &c. Mr. Woodward.] P. June. July.
Horſes eat it. Sheep and Cows refuſe it.

plantain-leaved ARENA'RIA *triner'via.* Leaves egg-ſhaped, pointed, on leaf-ſtalks, ſtringy.—
Curt. iv. 46.—*Walc.*—*Fl. dan.* 429.—*J. B.* 364. 1, *cop. in Pet.* 59. 1.
Stem forked. *Leaves* running down into leaf-ſtalks. *Fruit-ſtalks* bent down. *Capſules* pendant. Linn.—*Stems* downy. *Leaves,* ribs and edges hairy. *Empal.* leaves ſpear-ſhaped, hairy and ſkinny at the edge, twice as long as the petals, contracting as ſoon as the petals are fallen. Relh.—*Stem* reclining, downy, cylindrical, ſeveral growing together in tufts. *Branches* from the upper ſide. *Leaves* beſet with very ſhort fine hairs, and fringed with ſhort fine briſtles; the *lower* nearly heart-ſhaped, on flat leaf-ſtalks; the *upper* ſpear-egg-ſhaped, nearly ſitting. *Empalement,* leaves ſpear-ſhaped, concave,

concave, beſet with minute briſtles. *Petals* expanding, half as long as the empalement, white. *Chives* as long as the empalement, every other ſhorter. *Shafts* ſometimes 2 and 4. *Summits* bent back, woolly. WITH.

Woods and wet hedges. A. May.—July.
Sheep are not fond of it.

ARENA'RIA *ſerpyllifo'lia*. Leaves ſomewhat egg-ſhaped, pointed, ſitting. Bloſſoms ſhorter than the empalement.— *thyme-leaved*

Curt. iv. 45, *in its leaſt branched ſtate.*—*Ger.* 488. 3, *in its moſt branched ſtate, preferable, perhaps, in point of habit.*—*Dod.* 30. 1, *repr. in Lob. obſ.* 246. 2, *Ger. em.* 612. 3, *and cop. in Park.* 1259. 3, *and Pet.* 59. 2, *leaves too oblong.*—*(Fuchſ.* 23, *cop. in J. B.* iii. 348. 1, *and Lonic.* i. 167. 1, *with pendant ſtems more reſembles a Sagina or Moehringia.*—*J. B.* iii. 364. 2, *is a Lychnis.)*

Petals half as ſhort again as the empalement. *Capſule* nodding, on a horizontal fruit-ſtalk as in *Stellaria*, opening at the point with 6 teeth. *A. trinervia*, in theſe reſpects, agrees with it. *Bloſſoms* white. LEERS.

Leaſt Chickweed.

Roofs, walls, ſandy and very dry places. A. May.—July.
Sheep refuſe it.

ARENA'RIA *ru'bra*. Leaves thread-ſhaped. Flower-ſcales membranaceous, ſheathing.— *purple*

α. campeſtris. LINN. *field*

J. B. iii. 722. 3.—*Pet.* 59. 8.

Flowers expand between 9 and 10, and cloſe between 2 and 3. LINN.—*Empalement* hairy, clammy. RELH.—*Chives* 5. *Tips* double. *Pointals* 3 and 5. HALL. and FABRIC.—*Leaf-ſcales* uſually ſpear-ſhaped. Mr. WOODWARD.—*Stems* ſmooth. *Leaves* flatted, ſmooth, terminated by a little ſharp point. *Empal.* leaves ſpear-ſhaped, concave, membranaceous at the edge, and beſet with minute hairs with globular heads. *Summits* woolly. *Petals* purple. WITH.

Purple Spurrey.

Sandy meadows and corn fields. A. June.—Aug.
Goats refuſe it. Sheep are not fond of it.

β. HUDS.—Smaller than *A. rubra marina*. *Stem*, knots more diſtant than in *A. rubra campeſtris*. *Flowers* ſomewhat ſmaller than thoſe of both. *Seeds* ſmaller than thoſe of *A. rubra marina*, variable in its ſhape, but in general not bordered. RAY.—The foliage has much the air of a *Meſembryanthemum*. *Stem* nearly upright,

or

or aſcending, ſimple, or forked, 3 to 6 inches high. *Leaves* awl-ſtrap-ſhaped, convex underneath, about the length of the joints; the lower expanding, bent back, the upper upright, pointing one way. *Leaf-ſcales* furrounding the ſtem, of 2 lips; lips egg-ſhaped, pointed, ſometimes cloven at the end. *Fruit-ſtalks* ſolitary, from the baſe of the leaves, and at the forks of the ſtem, bent down when ripe. *Chives* 4, 5, or 7. *Petals* purple. *Seeds* flat, between half heart-ſhaped and kidney-ſhaped, the circular edge downy, with an elevated rounded border, the ſtraight edge plain, dark brown; ſome encompaſſed with a membranaceous border, deeper than half the breadth of the ſeed, white, with radiated ſcores, toothed at the edge. So remarkable a difference in ſtructure one might have expected to afford a mark of ſpecific diſtinction, but, though generally the 2 kinds of ſeeds are found on different plants, yet they are ſometimes ſeen in the ſame ſeed-veſſel. ST.

Arenaria media. LINN. according to Mr. Hudſon, but Linnæus expreſsly refers to another plant of *R. ſyn.* which ſee below.* ST.

Spergula maritima flore parvo cæruleo, ſemine vario. R. ſyn. 851.

Paſtures on the ſea coaſt. HUDS.—With *A. rubra marina* on Shell-coaſt in the Iſle of Shepey. RAY. A. June, July. [Sept. ST.]

ſea β. *marina.* Stem ſmooth. Leaves as long as the joints. Leaves and fruit-ſtalk downy and clammy. LINN.

Fl. dan. 740.—*Pet.* 59. 7.—*H. ox.* v. 23. 15.—(*J. B.* iii. 723. 1, *ſhould ſeem to be A. media.*)

Flowers expand at 9. *Empalement* covering half the capſule. It may ſeem a paradox to many, conſidering the great difference obſervable in ſize, duration, place of growth, and figure of the ſeeds, between the varieties α and β, to regard them as one ſpecies, but it is clearly juſtifiable. LINN.—*Chives* varying in number in this, as alſo in A. rubra α. RELH.—*Bloſs.* purple. *Flowers,* as alſo the whole plant, varying in ſize. *Seeds* furrounded with a membranaceous border as in *A. media,* but ſhallower. RUPP. ed. i. 89.—*Leaves* frequently longer than the joints. *Leaf-ſcales* membranaceous, broader and blunter than in α. Mr. WOODWARD.

Arenaria marina. CURT. *cat.* 201. (ST.)

Salt marſhes, and on the ſea coaſt. [Portreath, near Redruth, Cornwall. Mr. WATT.—In a ſalt marſh near Shirley Wich, Staffordſhire. ST.] P. RAY.

It is ſucculent, and very much reſembles Samphire, and conſiderable quantities of it are actually pickled and ſold for that plant. Mr. WATT.

mountain ARENA'RIA *ver'na.* Leaves awl-ſhaped. Stems panicled. Empalements taper-pointed, ſcored.—

Jacq.

Jacq. auſtr. v. 504.—*Pet.* 59. 4.—*Pluk.* 7. 3.—*Herm. par.* 12, *branches ſtraggling, petals too pointed.*

Differs from *A. ſaxatilis* in its *ſtems* being ſcarcely a hand's breadth high, and beſet with ſcattered hairs. *Fruit-ſtalks* hairy, and *empalements* pointed. LINN.

Mountainous ſituations about Settle, Kendal, Holywell, and Llanberys. Mountains about Settle. CURT.—[Arthur's Seat, Edinburgh. LIGHTF. ST.—Matlock, Derbyſhire, and in the northern counties. Mr. WOODWARD.—Road ſide between Holywell and St. Aſaph. Mr. WOOD.] P. May.—Aug.

A ſure indication of elevated ground. CURT.

β. HUDS.

(Ger. prov. 15. 1. *at p.* 409, *referred to by Hudſ. is A. juniperina.)*

ARENA'RIA *tenuifo'lia*. Leaves awl-ſhaped. Stem panicled. Empalements upright. Petals ſhorter than the empalement, ſpear-ſhaped.— *fine-leaved*

Vaill. 3. 1.—*Fl. dan.* 389.—*J. B.* iii. 364. 3, *cop. in Pet.* 59. 3.

Leaves awl-ſhaped, connected at the baſe. *Empal.* leaves finely tapering, or awned, pointed underneath with 2 green lines. *Petals* broad-ſpear-ſhaped, half as ſhort again as the empalement. LINN.—*Empalement* generally ſmooth, oft times a little hairy. LIGHTF.—*Stems* frequently purple, often much branched. *Leaves* connected, and much bellying at the baſe, ſhorter than the joints of the ſtem; frequently in bundles from the boſom of the larger, which are the rudiments of branches. Mr. WOODWARD.

Sandy meadows and paſtures. Corn fields on the borders of Triplow Heath; Gogmagog Hills, Cambridgeſhire. Near Deptford; Cornbury Quarry, near Charlbury, Oxfordſhire. On a wall in Batterſea. [Near Cley, Norfolk. Mr. CROWE.—Near Bury. Mr. WOODWARD.—Malvern Hill, Worceſterſhire. Mr. BALLARD.] P. June. July.

ARENA'RIA *laricifo'lia*. Leaves briſtle-ſhaped. Stem rather bare above. Empalements ſomewhat hairy.— *larch-leaved*

Jacq. auſtr. iii. 272.—*J. B.* iii. 360. 2, *but the petals, as Haller obſerves, are repreſented as nicked.—(Scop.* 18, *a different ſpecies, more like A. auſtriaca.)*

Empal. oblong, ſtreaked, cylindrical, downy. LINN.—*Flowers* terminating.

A. laricifolia. LIGHTF.—Cannot be the *A. laricifolia* of Linn. ST. Mountains of Weſtmoreland. HUDS.—Dry mountainous paſtures in a ſtony ſoil. Caſtle Hill, near Forfar Angus. LIGHTF.

P. July. Aug.

619. CHERLE'RIA.

619. CHERLE'RIA. Cyphel.

EMPAL. 5 leaves; ſpear-ſhaped; concave; equal.
BLOSS. *Petals* none, unleſs the empalement or honey-cups be conſidered as ſuch. *Honey-cups* 5; nicked; placed in a circle; very ſmall.
CHIVES. *Threads* 10; awl-ſhaped; every other fixed to the back of the honey-cups. *Tips* ſimple.
POINT. *Seed-bud* egg-ſhaped. *Shafts* 3; ſerpentine. *Summits* ſimple.
S. VESS. *Capſule* egg-ſhaped; cells 3; valves 3.
SEEDS 2 or 3; kidney-ſhaped.

ESS. CHAR. *Empalement of* 5 *leaves. Honey-cups* 5; *cloven; reſembling petals. Tips, every other barren. Capſule of* 1 *cell;* 3 *valves;* 3 *ſeeds.*

moſſy CHERLE'RIA *Sedoi'des.*—

Jacq. auſtr. iii. 284.—*Hall. opuſc.* 1. 3. *at p.* 300, *cop. in Hall.* 21. 1. *at* ii. *p.* 114.—*Pen. voy* 33.—*Pluk.* 42. 8.—*Park.* 737. 11, *cop. in H. ox.* xii. 6. 14.

Leaves oppoſite, ſtrap-ſhaped, rough at the edge, connected at the baſe into a kind of ſheath. When the leaves fall off, the ſheath and keel of the leaves remain, cloathing the ſtem, whence it has an affinity to the Gilliflower tribe. LINN.—In my ſpecimens the bottom of the ſtems are cloathed with the ſhrivelled but entire leaves. *Honey-cups* truly ſuch, fleſhy, connected with each other. ST.

Highland Mountains, near their ſummits; and by the ſides of rills in Scotland. P. July. Aug.

Order

Order V.

PENTAGYNIA; V. POINTALS.

628. COTYLE'DON. Navelwort.

EMPAL. *Cup* 1 leaf, with 5 clefts; ſharp; ſmall.
BLOSS. 1 *petal*; bell-ſhaped; with 5 ſhallow clefts. *Honey-cup* a hollow ſcale at the baſe of each ſeed-bud.
CHIVES. *Threads* 10; awl-ſhaped; ſtraight; as long as the bloſſom. *Tips* upright; with 4 furrows.
POINT. *Seed-buds* 5; oblong; rather thick; ending in awl-ſhaped *Shafts*, longer than the chives. *Summits* ſimple; reflected.
S. VESS. *Capſules* 5; oblong; diſtended; tapering; of 1 valve; opening lengthways on the inſide.
SEEDS many; ſmall.
Ess. CHAR. *Empalement with* 5 *clefts. Bloſſom* 1 *petal. Honey-cup ſcales* 5; *at the baſe of the ſeed-bud. Capſ.* 5.

COTYLE'DON *Umbili'cus*. Leaves target-ſhaped, ſcolloped. Stem nearly ſimple. Flowers pendant. Floral-leaves entire. HUDS.—*Lower-leaves in ſome plants kidney-ſhaped*. HUDS. *common*

Cluſ. ii. 63. 1.—*Blackw.* 263.—*Dod.* 131. 1, *repr. in Lob. obſ.* 209. 3, *Ger. em.* 528. 1, *and cop. in Park.* 740. 1, *and Ger.* 423. 1.—*J. B.* iii. 684. 1.—*Matth.* 1122.

Root tuberous. LINN.—*Stem* frequently purple. *Spike* ſometimes ſimple, ſometimes branched towards the bottom. *Floral-leaves* ſpear-ſhaped, 1 at the baſe of each fruit-ſtalk. *Flowers* in the ſmaller ſpecimens not always pendant. *Bloſs.* ſegments pointed, ſcored. Mr. WOODWARD.—Whole *plant* ſucculent. *Root* tuberous, roundiſh. *Stem* nearly upright, ſlightly angular, 6 to 9 inches high. *Leaves* ſomewhat ſcolloped. *Flowers* in long terminating bunches, of a white greeniſh hue. *Empal.* ſegments ſpear-egg-ſhaped. *Bloſs.* ſhrivelling, permanent. ST.—Whole *plant* has a ſhining, froſted appearance. *Leaves* thick, fleſhy, circular, with central leaf-ſtalks, concave on the upper ſurface, with a hollow dimple nearly in the centre, juſt oppoſite to the inſertion of the leaf-ſtalk underneath. *Leaf-ſtalks* round. *Flowering ſtems* tinged with

with red. *Stem-leaves* reſembling the root-leaves, but not ſo exactly circular, and the leaf-ſtalk not fixed ſo nearly in the centre. *Empal.* diviſions extending more than half way down. *Chives*, every other ſhorter. *Bloſs.* tubular, 5-cornered, ſides flat. *Honey-cup ſcales* and *tips* yellow. WITH.

C. umbilicus. β. LINN.

Navelwort. Kidneywort. Wall Pennywort.

Old walls, and moiſt rocks. Weſt of England, Caernarvonſhire, and about Troutbeck, Weſtmoreland. [Old walls at Peterborough; and Thorpe, between Peterborough and Wandsford. Dr. J. E. SMITH and Mr. WOODWARD.—Walls, Cornwall. Mr. WATT.—Plentifully throughout Caernarvonſhire and Merionethſhire. Mr. WOOD.—Malvern Hill, Worceſterſh. Mr. BALLARD. ST.—In the clefts of rocks above Great Malvern. ST.]

P. June.—Aug.

yellow (*CURT.) COTYLE'DON *lu'tea.* Leaves target-ſhaped, ſcolloped. Stem nearly ſimple. Flowers upright. Floral-leaves toothed. HUDS.

Dodart. 73. *at p.* 265, *I have not ſeen.*

Roots knotty, creeping. MORISON.

C. Umbilicus. α. LINN.

Walls and moiſt rocks, in the Weſt Riding of Yorkſhire. Mr. TOFIELD.—In the garden of Mr. Clement, who received it out of Somerſetſhire. HUDS. P. June.

629. SE'DUM. Stone-crop.

EMPAL. *Cup* with 5 diviſions; ſharp; upright; permanent.

BLOSS. *Petals* 5; ſpear-ſhaped; taper; flat; expanding. *Honey-cups* 5; each conſiſting of a ſmall ſcale; notched at the end; and fixed on the outſide the baſe of each ſeed-bud.

CHIVES. *Threads* 10; awl-ſhaped; as long as the bloſſom. *Tips* roundiſh.

POINT. *Seed-buds* 5; oblong; ending in ſlender *Shafts. Summits* blunt.

S. VESS. *Capſules* 5; expanding; taper; compreſſed; notched at the baſe; opening inwards along the ſeam.

SEEDS many; very ſmall.

ESS. CHAR. *Empal. with* 5 *clefts. Bloſs.* 5 *petals. Honey-cup ſcales* 5; *at the baſe of the ſeed-bud. Capſules* 5.

* *Leaves*

* *Leaves flat.*

SE'DUM *Teleph'ium*. Leaves nearly flat, ſerrated. *Orpine*
Flowers in leafy broad-topped ſpikes. Stem upright.—

α. *Ludw.* 200.—*Fuchſ.* 800, *cop. in J. B.* iii. 681.—*Matth.* 636. —*Cluſ.* ii. 66. 2, *repr. in Dod.* 130. 2, *Lob. obſ.* 211, *Ger. em.* 519. 2, *and cop. in Park.* 726. 2, *and improved in H. ox.* xii. 10. *row* 1. 1.—*Ger.* 416. 2.—*Blackw.* 191. 2. white

More rare with us than β. CURT. ST.

β. *Curt.* iii. 35.—*Fl. dan.* 686.—*Fuchſ.* 801.—*Cluſ.* ii. 66. 1, *cop. in Ger.* 417. 1, *and H. ox.* xii. 10. *row* 1 2.—*Blackw.* 191.—*Lonic.* ii. 24. 2.—*Trag.* 373.—*(Ger. em.* 519. 1, *is S. T. maximum.)* purple

Leaves oval, rather toothed than ſerrated. *Empalement* not half ſo long as the bloſſom. *Petals* hooked at the point, reddiſh purple. *Honey-cup glands* yellow, ſtrap-ſhaped, crooked, not notched at the end. *Threads* reddiſh purple. *Tips* browniſh red. *Duſt* yellow. *Seed-buds* tapering at each end, ſtreaked with reddiſh purple. *Seeds* long, tapering at each end. WITH.

Walls, paſtures, and hedges. [Sandy fields, Suffolk, frequent. Does not ſeem to grow on roofs or walls, unleſs planted. Mr. WOODWARD.—Near Aſhburne. Mr. WHATELY.—Paſture near Mr. Pearſon's houſe, Tettenhall, Staffordſhire. WITH.—Fields about Robinſon's-end, Malvern Chace. Mr. BALLARD.] P. Aug.

Cows, Goats, Sheep, and Swine eat it. Horſes refuſe it. LINN.—A decoction of the leaves in milk is a forcible diuretic. It has been given with ſucceſs to cure the piles. WITH.

** *Leaves round.*

SE'DUM *daſyphyl'lum*. Leaves oppoſite, egg-ſhaped, blunt, fleſhy. Stem weak. Flowers ſcattered.— *thick-leaved*

Curt. iii. 25.—*H. ox.* xii. 7. 35.*—*J. B.* iii. 691.†

Stems numerous, weak, trailing. *Leaves* broader than they are long, nearly flat above, convex underneath, ſea-green with a tinge of purple. *Flowers* few, terminating, ſolitary. *Fruit-ſtalks* branched. Mr. WOODWARD.

Walls and roofs. Market-eit near Market-ſtreet; Hammerſmith and Kew. [Bugden, Huntingdonſhire. HUDS. Mr. WOODW. —Near London. Mr. WOODWARD.] P. CURT. ST. July.

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* Too large. Leaves pointed, and on leaf-ſtalks. Mr. WOODWARD. ST.

† Too large alſo. ST.

yellow SE'DUM *reflex'um*. Leaves awl-ſhaped, ſcattered, unconnected to the ſtem at the baſe; the lower ones bowed back.—

Fl. dan. 113, *accurate as far as it goes.—Cluſ.* ii. 60. 2, *repr. in Dod.* 129. 1, *Ger. em.* 512. 1, *and cop. in H. ox.* xii. 6. 6, *and Pet.* 42. 5, *when firſt come into flower.—Cluſ.* ii. 60. 1, *repr. in Ger. em.* 513. 6, *and cop. in H. ox.* xii. 6. 7, *and Pet.* 42. 6, *going out of flower.—Fuchſ.* 33, *cop. in J. B.* iii. 692. 3.—*Ger.* 412. 1.

Leaves thrice as narrow as thoſe of *S. rupeſtre*, more finely awl-ſhaped, green, not ſea-green, expanding, crowded, in 8 rows, expanding, not tiled, the lowermoſt bowed back as a hook. LINN. —*Stem-leaves* ſea-green, crowded ſo as to cover the ſtems, at length falling off and leaving the ſtem bare. *Stem* nearly upright, branched at the top; branches often bowed back. *Bloſs.* yellow. HALL. ST.—*Stems* from a hand's breadth to a foot high, ſea-green tinged with red. *Leaves* of a mixture of ſea-green and red. *Flowers* full yellow, in a tuft, like forked panicle; the lateral branches not unfrequently ſlightly bowed back. *Chives* 12. POLLICH. ST.—*Leaves of the branches* ſea-green, the upper bowed inwards; *thoſe of the ſtem* tinged with red, diſtant. *Empalement* with 6 and ſometimes 7 clefts. *Petals* 6 or 7, bluntiſh, concave. *Honey-cup ſcales* blunt. ST.—*Leaves* in ſome plants red, in others green. *Empalement* with 6 diviſions. *Petals, honey-cups, and pointals* 6. *Chives* 10. WITH. —*Leaves* ſea-green. LIGHTF.

Prick-madam.—Walls, roofs, and rocks, frequent. [Malvern Hill. Mr. BALLARD.] P. July.

rock SE'DUM *rupeſ'tre*. Leaves awl-ſhaped, in 5 rows, crowded, unconnected to the ſtem at the baſe. Flowers in tufts.—

Dill. elth. 256. 333.—*Pet.* 42. 8.—*(Fl. dan.* 59, *is a different plant, as is evident from the flowers growing intermixed with leaves.)*

Leaves ſea-green, more thickly awl-ſhaped, tiled in 5 lines. LINN.—Which may be beſt obſerved by viewing it with the ends of the branches oppoſed to the eye; acrid to the taſte. *Bloſſoms* bright yellow. WITH.—*Stems* before flowering cloſely tiled. *Leaves* ſcattered. *Flowers* in a cloſe, thick, branched tuft. *Bloſs.* yellow. Mr. WOODWARD.

St. Vincent's Rocks, near Briſtol. Rocks of Hyſvae over the valley of Nantphrancon. P. Aug.

Both this and the preceding are cultivated in Holland and Germany to mix with lettuces in ſallads.

S'EDUM

SE'DUM *al'bum*. Leaves oblong, blunt, nearly round, ſitting, expanding. Tuft branching.— *whiteflowered*

Curt. i. 11.—*Fl. dan.* 66.—*Blackw.* 428.—*Ger.* 413. 2.—*Cluſ.* ii. 59. 1, *repr. in Dod.* 129. 2, *Lob. obſ.* 205. 2, *Ger. em.* 512. 2, *and cop. in Park.* 734. 1, *and H. ox.* xii. 7. 23.—*Fuchſ.* 35, *repr. in Trag.* 378, *and J. B.* iii. 690. —*Walc.*—*Lonic.* i. 60. 1.—*(Matth.* 1118, *is S. min. teretif. alt. C. B.)*

The whole plant ſometimes purple, except the flowers, which are white. LINN.—*Stem-leaves* (when drying) grooved on the upper ſide. *Empal. ſegments* blunt, dotted with purple. *Honey-cups* yellow. *Tips* cheſnut-coloured. *Duſt* yellow. *Seed-buds* white. *Summits* pointed. WITH. ST.

Sedum minus teretifol. alb. R. ſyn. p. 271.—*Tragus Herba, Gallinariæ baccæ. Trag.* i. *p.* 60. *A.* (ST.)

Walls and roofs. [Walls at Peterborough. Mr. WOODWARD. —Rocks above Great Malvern. NASH.] P. June. July.

Goats eat it. Sheep refuſe it.

SE'DUM *a'cre*. Leaves nearly egg-ſhaped, growing to and ſitting, bellying, nearly upright, alternate. Tuft with 3 diviſions.— *Pepper*

Curt. i. 4.—*Sheldr.* 42.—*Fuchſ.* 36, *cop. in J. B.* iii. 694. 2.—*Trag.* 379.—*Blackw.* 232.—*Ger.* 415.—*Cluſ.* ii. 61. 1, *repr. in Ger. em.* 517. 2, *cop. in Park.* 735. 7, *H. ox.* xii. 6. *row* 3. 12, *and improved in Pet.* 42. 9.—*Dod.* 129. 3, *repr. in Lob. obſ.* 205. 4, *cop. in Park.* 735. 8.—*Matth.* 1119.—*Lonic.* i. 59. 2.

Flowers terminating. *Bloſſoms* yellow.

Stone Crop. Wall Pepper.

Walls, roofs, rocks, and dry paſtures. P. June. July.

This plant continues to grow when hung up by the root, which is a proof that it receives its nouriſhment principally from the air, as is the caſe with moſt of the ſucculent plants. It is very acrid. Applied externally it bliſters. Taken inwardly it excites vomiting. In ſcorbutic caſes, and quartan ages, it is an excellent medicine under proper management.

Goats eat it. Cows, Horſes, Sheep, and Swine refuſe it.

β. HUDS. *Sedum ſexangulare*, which ſee.

SE'DUM *ſexangula'rè*. Leaves ſomewhat egg-ſhaped, growing to and ſitting, bellying, nearly upright, tiled in 6 rows.— *inſipid*

Curt. iv. 37.

Root not forming a turf. Agrees with the *S. acre* in appearance, flowers, and ſituation, but differs in its leaves being before bloſſoming evidently tiled in 6 rows, and, inſtead of having a biting, acrid taſte, being inſipid. *Branches* never ſo copious as to form a turf. *Flowers* in each branch of the tuft ſeldom more than 3. LINN.—*Chives* 8 to 12. MŒNCH.—*Stems* ſeveral, with ſhort expanding branches. *Leaves* pale green, inſipid. *Tuft* with 3 branches, terminating. *Flowers* on fruit-ſtalks, one at the diviſion of the tuft, with a leaf at the baſe of each. *Empal.* leaves growing to and ſitting, yellowiſh at the baſe, much ſmaller than the bloſs. *Petals* egg-ſpear-ſhaped, concave, yellow. Flowers later than the *S. acre*. One 5th of the parts of fructification ſometimes wanting. RETZ.—*Leaves of the flowering ſtem* nearer to each other than thoſe of the *S. acre*, longer, more numerous, in general much redder, and nearly of the ſame thickneſs throughout, in the young ſhoots diſpoſed in 6 rows, which are ſometimes ſtraight and ſometimes ſlanting. CURT.

Walls, roofs, and dry paſtures. Near Northfleet and Sheerneſs, the Iſle of Shepey, and ſouth ſide of Greenwich Park Wall, near the weſt corner. P. June.

Goats eat it.

Engliſh SE'DUM *angl'icum*. Leaves ſomewhat egg-ſhaped, growing to and ſitting, bellying, alternate. Tuft with 2 branches. HUDS.

Fl. dan. 82.—*Ray* 12. 2. *at p.* 326.—*Pet.* 42. 10.

Root branching. *Stem* trailing, cylindrical, leafy, ſmooth, branching, reddiſh; *branches* alternate. *Leaves* tiled generally in 3 rows, ſomewhat pointed, flattiſh above, bellying underneath, pulpy, naked. *Tuft*, branches ſomewhat bowed back. *Flowers* ſitting, pointing one way. *Bloſs.* white, or purpliſh white. *Capſ.* purpliſh. HUDS.—Whole *plant* frequently of a purpliſh caſt. *Stems* proſtrate, with numerous aſcending branches. *Branches* numerous, aſcending, before flowering club-ſhaped, being covered by the leaves cloſely tiled. *Leaves* fleſhy, blunt. *Flowers* terminating, on ſhort fruit-ſtalks, crowded. *Empalement* divided almoſt to the baſe; ſegments not ſo pointed as the petals. *Petals* as long again as the empalement, pointed, pale fleſh-coloured, with red lines. *Tips* purple. *Capſules* very pointed. Mr. WOODWARD.

S. rubens. LIGHTF. deſcription good.

Rocks, ſtones, and drift ſand. Suffolk coaſt between Yarmouth and Donewich. RAY. Mr. WOODWARD.—Rocks on the ſide of Winandermere. Roofs and walls in Wales, eſpecially in the mountainous parts. Sea-ſhore near Brakelſham. Northern counties. HUDS.

Huds. Mr. Woodward.—Devonſhire and Cornwall. Deal in Kent. [Some rocks in Longſledale. Curt.—Whole Suff. coaſt. Mr. Woodward.] P. July. Aug.

SE'DUM *villo'ſum*. Stem upright. Leaves flattiſh. Leaves and fruit-ſtalks ſomewhat hairy.— *marſh*

Fl. dan. 24.—*Cluſ.* ii. 59. 3, *repr. in Ger. em.* 516. 1, *and cop. in Park.* 734. 6, *H. ox.* xii. 8. 48, *and Pet.* 42. 7.

Fruit-ſtalks lateral, with 1 or 2 flowers. *Flowers* purple. Hall.—*Stem* ſmooth below, hairy and clammy above *Leaves* fleſhy, oblong, nearly flat above, hairy, the lower ones ſmooth. *Fruit-ſtalks* hairy, clammy, ſolitary. *Empalement* hairy, not merely ſo, as Haller ſays, on the keel. Mr. Woodward.

Moiſt mountainous meadows and paſtures. Moiſt rocks about Ingleborough Hill, Yorkſh. and Hartſide Hill, near Gambleſby, Cumberl. Ray. Mr. Woodw.—Hinkleham, near Settle. Scotl. [Carr End Wenſleydale, Yorkſhire. Curt.—Cloſe by Weather-cock Cave, at the foot of Ingleborough. Mr. Woodward.]

A. June. July.

634. OX'ALIS. Cuckow-bread.

Empal. *Cup* with 5 diviſions; ſharp; very ſhort; permanent.

Bloss. with 5 diviſions, connected by the claws; upright; blunt; nicked.

Chives. *Threads* 10; hair-like; upright; the 5 outermoſt the ſhorteſt. *Tips* roundiſh; furrowed.

Point. *Seed-bud* with 5 angles. *Shafts* 5; thread-ſhaped; as long as the chives. *Summits* blunt.

S. Vess. *Capſule* with 5 corners, and 5 cells; opening lengthways at the corners.

Seeds nearly round; burſting out of the ſeed-veſſel.

Ess. Char. *Empalement of* 5 *leaves. Petals connected by their claws. Capſule opening at the corners*; 5-*cornered.*

Obs. In ſome ſpecies the capſule is ſhort, and the ſeeds ſolitary; in others it is long, and the ſeeds many.

OX'ALIS *Acetoſel'la*. Stalks with 1 flower. Leaves 3-fold. Leafits inverſely-heart-ſhaped. Root toothed. Linn.—Leafits hairy. Thumb. *Sorrel*

Curt. ii. 19.—*Sheldr.* 26.—*Mill. ill.*—*Walc.*—*Blackw.* 308.—*Fuchſ.* 567, *cop. in J. B.* ii. 387. 2, *and ill cop. in H. ox.* ii.

17. *row* 4. 1.—*Trag.* 521.—*Mill.* 195. 2.—*Dod.* 578. 2, *repr. in Lob. obſ.* 499. 1. *Ger. em.* 1201, *and cop. in Park.* 746. 1. —*Pet.* 63. 7.—*Lonic.* i. 219. 1.—*Matth.* 837, *cop. in Ger.* 1030. 1.

Leaves frequently purple underneath; *leafits* cloſe againſt rain. *Flowers* large. *Petals* white, beautifully veined with purple. Mr. WOODWARD.—*Leafits* at firſt green, afterwards purple. *Fruit-ſtalks* with a ſmall purple floral-leaf. *Petals* connected by ſmall fleſhy excreſcences, the claws being inſerted into the receptacle ſeparate and diſtinct. WITH.—In rainy weather the leaves ſtand upright, but, in dry weather, they hang down. *Bloſſoms* white, but ſometimes pale purple.

Wood Sorrel. Cuckow-bread. Sour Trefoil. [*Cuckow-meat. Cuckow Sorrel. Stubwort.* ST.]

Woods, ſhady hedges, and heaths. P. April.

The juice is gratefully acid. The London College directs a conſerve to be made of the leaves, beaten with thrice their weight of fine ſugar. The expreſſed juice depurated, properly evaporated, and ſet in a cool place, affords a cryſtalline acid ſalt in conſiderable quantity, which may be uſed wherever vegetable acids are wanted. It is employed to take iron moulds out of linen, and is ſold under the name of Eſſential Salt of Lemons. WITH.—An infuſion of the leaves is an agreeable liquor in ardent fevers, and boiled with milk they make an agreeable whey. LEWIS.

Sheep, Goats, and Swine eat it. Cows are not fond of it. Horſes refuſe it.

β. HUDS. Bloſſoms purple. RAY. ST.

Lane between North Owram and Hallifax. RAY.

yellowflower'd OX'ALIS *corniculata*. Fruit-ſtalks bearing rundles. Stem branching, ſpreading. LINN.—Stem reclining, herbaceous. THUMB.

Fl. dan. 873.—*Cluſ.* ii. 249. 1, *repr. in Dod.* 579. 1. *Lob. obſ.* 495. 2, *Ger. em.* 1202, *and cop. in Park.* 746. 2, *and J. B.* ii. 388.—*H. ox.* ii. 17. *row* 4. 2.—*Ger.* 1030. 2.

Threads connected as in the claſs Monadelphia. ST.—*Rundle* of 3 or 4 flowers. CLUS. POLLICH.—2 to 5. HALL.—generally 2. BOEHM. Mr. MARTYN.—*Seeds* brown, tranverſely ſcored, incloſed in a tranſparent ſeed-coat, which, being preſſed, opens with a jerk, and throws out the ſeed to ſome diſtance. Mr. HOLLEFEAR.—*Leaves* growing by threes, on leaf-ſtalks. *Capſules* long and pointed. *Bloſſoms* yellow.

Oxalis corniculata. LINN. hort. cliff. 175. hort. upſ. 116.—*Oxys caule ramoſo diffuſo, petiolis alaribus pauciflоris umbellatis.* HALL. helv. n. 929.

n. 929.—*Oxys corniculata.* Scop. carn. ed. 2. n. 562.—*Oxys flavo flore.* Clus. ib. 249.—*Oxys lutea.* Bauh. hiſt. Ger. and Ger. em. ib.—*Oxys luteo flore.* Park. ib.—*Trifolium acetoſ. corniculat.* Bauh. pin. 330.—*Trifolium luteum minus repens etiam procumbens.* H. ox. II. p. 183.—*Oxys lutea corniculata repens.* Lob. ib.—*Oxys ſive Trifolium acetoſum, flore luteo.* Dod. ib. (St.)

Firſt found in Great Britain by Mr. J. Turner, in ſeveral places in the neighbourhood of Exeter. Berkenh. *Outlines* ii. *p.* 127. Mr. Martyn.—[In a waſte rubbiſhy ſpot at Dawliſh, Devonſh. Sept. 1781, and ſince in ſeveral other places in the ſame county. Mr. Martyn.]

A. but if houſed during the winter P. Retz. i. 52. May.—Oct.

635. AGROSTEM'MA. Cockle.

Empal. *Cup* 1 leaf; leather-like; tubular; with 5 teeth; permanent.

Bloss. *Petals* 5; *claws* as long as the tube of the cup; *limbs* expanding; blunt.

Chives. *Threads* 10; awl-ſhaped; every other thread ſhedding its duſt later, and fixed to the claws of the petals. *Tips* ſimple.

Point. *Seed-bud* egg-ſhaped. *Shafts* 5; thread-ſhaped; upright; as long as the chives. *Summits* ſimple.

S. Vess. *Capſule* oblong-egg-ſhaped; covered; with 1 cell, and 5 valves.

Seeds many; kidney-ſhaped; dotted. *Receptacles* equal in number to the ſeeds; looſe; the inner ones gradually longer.

Ess. Char. *Empalement of* 1 *leaf; leather-like. Petals* 5; *with claws; border blunt; undivided. Capſule of* 1 *cell.*

Obs. Bloſſom not crowned in *A. Githago* as it is in the other ſpecies. Linn.—Hence appears how artificial is the diſtinction between *Silene* and *Cucubalus.* St.

AGROSTEM'MA *Githa'go.* Hairy. Empalements as long as the bloſſom. Petals entire, without a crown. Linn.—Empalements longer than the bloſs. St.* *corn*

* Calycibus corolla longioribus. St.

Curt. iii. 35.—*Fl. dan.* 576.—*Dod.* 173, *repr. in Lob. obſ.* 23. 2, *Ger. em.* 1087, *and cop. in Park.* 632. 9. *H. ox.* v. 21. 31, *and Pet.* 57. 12.—*Fuchſ.* 127, *cop. in J. B.* iii. 341. 2, *and Trag.* 127.—*Matth.* 798.—*Ger.* 926.—*Walc.*—*Lonic.* i. 83. 3.

Stem upright, 2 feet high, branching above. *Leaves* nearly growing together, ſtrap-ſpear-ſhaped. *Fruit-ſtalks* with 1 flower. *Petals* blunt, ſhining underneath. *Empalement* with 10 angles; ſegments pointed. *Seed-bud* ſitting, pear-ſhaped. *Capſule* with 10 ſcores. *Seeds* angular, black. RELH.—*Petals* generally nicked. Mr. HOLLEFEAR. ST.—*Stem* forked. *Leaves* oppoſite, ſtrap-ſpear-ſhaped. *Empalement* with 10 ribs, egg-ſhaped below, divided at the top into 5 long ſtrap-ſhaped ſegments. *Petals*, the *limb* towards the baſe with 3 or 5 black dotted lines; *claws* with a plait near the bottom, appearing to contain a honey-like juice. *Honey-cup* formed by the membrane under the ſeed-bud. *Threads*, 5 ſhorter, and ſometimes ſeparating with the petals, but in general they all remain with the receptacle. *Tips* arrow-ſhaped. *Shafts* hairy. *Seeds* inverſely egg-ſhaped, compreſſed, each on a pedicle ſpringing from a common receptacle. I once found on the top of the receptacle of the ſeeds another ſeed-bud, with 5 hairy ſhafts, containing a number of embryo ſeeds, with the appearance of the rudiment of a 3d ſeed-bud within it; but in many others which I examined the 2dary ſeed-buds were not to be found. WITH. *Receptacle of the ſeeds* egg-ſhaped, fleſhy, ½ as long as the capſule, beſet with pedicles ſupporting the ſeeds, and terminated by 5, ſometimes 6, tough, white, awl-ſhaped filaments, which, on carefully opening the ſeed-bud, appear to be connected with the ſhafts, of which they appear to be extenſions, correſponding to the umbilical chord of animals or of the ſtone fruits, and which, I doubt not, convey the ſpermatic matter to the embryo ſeeds. The ſeeds advancing to maturity riſe above their baſe, and the filaments detach themſelves from the point of the ſeed-veſſel. *Empalement* moſtly 1-3d as long again as the bloſſom. *Bloſs.* purple, ſometimes white. ST. *Cockle.*

Corn fields, frequent. A. June. July.

Horſes, Goats, and Sheep eat it,

636. LYCH'NIS. Cuckow-flower.

EMPAL. *Cup* 1 leaf; tubular; membranaceous; with 5 teeth; permanent.

BLOSS. *Petals* 5; *claws* as long as the cup; flat; bordered; *limbs* flat; frequently cloven.

CHIVES. *Threads* 10; longer than the cup; alternately ripening later, and fixed to the claws of the petals. *Tips* fixed ſide-ways.

POINT. *Seed-bud* nearly egg-ſhaped. *Shafts* 5; awl-ſhaped; longer than the chives. *Summits* downy; bent towards the left.

S. VESS. *Capſule* nearly egg-ſhaped; covered; valves 5; cells 3.

SEEDS many; roundiſh.

ESS. CHAR. *Empalement of* 1 *leaf; oblong; ſmooth. Petals* 5; *with claws; border generally cloven. Capſule with* 5 *cells.*

LYCH'NIS *Flos cu'culi.* Petals with 4 clefts. Fruit roundiſh. LINN.—*Clefts frequently only* 3. Meſſ. HAWKES and JONES. *meadow*

Curt. 1. 2.—*Walc.*—*Fl. dan.* 590.—*Trag.* 403, *cop. in Lonic.* i. 171. 1.—*Ger.* 480. 1 *and* 2.—*Cluſ.* i. 292. 2, *repr. in Dod.* 177, *Ger. em.* 600. 1, *and cop. in H. ox.* v. 20. 8, *and Pet.* 56. 6.

Stems trailing, but upright when in flower. LINN.—*Capſule* of 1 cell. LEERS. CURT. WITH.—*Leaves* ſtrap-ſpear-ſhaped, nearly upright. *Empalement* with 10 ribs and 10 furrows, coloured; teeth ſpear-ſhaped. *Petals*, 2 middle ſegments the longeſt; claws with 2 ſmall ſpear-ſhaped teeth at the top. *Threads*, thoſe fixed to the petals ſhorter, the other 5 fixed to a glandular receptacle. *Shafts* of the length of the ſhorter chives. *Bloſſoms* purpliſh red. WITH.

Armoraria pratenſis mas. GER. em. 600.

Meadow Pinks. Wild Williams. Cuckow-flower. Ragged Robin. Crow-flower.

Moiſt meadows and paſtures. P. June.

Horſes, Sheep, and Goats eat it.

Aphis Cucubali feeds upon it. LINN.

β. *Mill.* 169. 2.—*Cluſ.* i. 293. 1, *repr. in Ger. em.* 600. 3, *and cop. in Park. par.* 255. 5. double

Pleaſant in Sight.

Meadow near Bungay, Suffolk. Mr. WOODWARD.

3. Bloſſoms white. RAY. ST. white

[Wood

[Wood near Souſton's Roch, near Clifton upon Teme, Worceſterſhire. St.]

Catchfly LYCH'NIS *Viſca'ria*. Petals nearly entire.—*Cluſ.* i. 289. 2, *repr. in Ger. em.* 601. 3, *and cop. in Park.* 637. *H. ox.* v. 20. 6, *and Pet.* 57. 3.— *J. B.* iii. 348. 2.

Stems, the upper part of the ſuperior joints anointed with a reddiſh black clammy ſubſtance like tar, in which Ants, and other wingleſs inſects are inviſcated, in attempting to creep up to the flowers. *Capſules* with 5 cells. Linn.—*Stem* upright, ſimple. *Bloſſoms* red.

Red German Catchfly.

Mountainous paſtures. Sides of Craig Wreidhin Hill, Montgomeryſhire. Rocks in Edinburgh Park. Dr. Parsons. St.—[Near Croydon, Surrey. Mr. Crowe.] P. May. June.

Curculio Viſcaria is found upon it.

Campion LYCH'NIS *dioi'ca*. Flowers with chives on one plant, and flowers with pointals on a different plant. Linn.—*But ſometimes with chives and poiutals within the ſame empalement*. Linn. Huds.

red α. Bloſſoms red.

Curt. ii. 14.—*Walc.*—*Cluſ.* i. 294. 1, *repr. in Dod.* 171. 1, *Lob. obſ.* 181. 2, *Ger. em.* 469. 1, *and cop. in Park.* 631. 1 *and* 2, *H. ox.* v. 21. 23, *and Pet.* 57. 6.

Correſponds in ſtructure very exactly with β. With.—*Stems* weaker. *Leaves* ſofter and more flaccid than in β. Ray.—The male of this kind is that in which there are *apices* projecting from the middle of the flower; the female where theſe are wanting. And this takes place in both colours, for there is a white and a purple male, and the like of the female. Gesner in C. B. pin.—Geſner's obſervation is juſt. His male, however, is the fertile, and his female the barren plant. St.—There are plants with fertile and barren flowers, both of a red and white colour, whence there is reaſon to believe them to be two diſtinct ſpecies. Dr. Burgess *in Lightf. p.* 1103.—The conſtancy in the colour of the two varieties, together with ſome other circumſtances, have led me to ſuſpect them to be diſtinct ſpecies. Curt.—There is little doubt but that they are diſtinct ſpecies. They never grow intermixed, nor have I ever found them near each other. Mr. Woodw.

Red Flowered Wild Campion.

Hedges, ditches, and moiſt woods. The rocks in the Iſle of Ailſa are covered with it, where there is none of the white. Lightf. P. [May.—Sept. St.]

β. Bloſſoms

β. Bloſſoms white. white

Walc. fertile plant.—Matth. 997, *cop. in J. B.* iii. 342, *and Pet.* 57. 5.—*Fl. dan.* 792, *fertile and barren plants, no hairineſs.—H. ox.* v. 21. 21.—*(Till. hort.* 41. 1, *has the air of a diſtinct ſpecies, though it is poſſibly the fertile plant.)*

Capſule of 1 cell. LINN. LEERS. CURT.—*Flowers* frequently with chives and pointals within the ſame empalement. WITH. ST.—But early in the ſummer and in the autumn they are generally on diſtinct plants. *Stems* nearly cylindrical, hollow, coloured, beſet with fine hairs. *Leaves* ſpear-ſhaped, ſitting, oppoſite, ſoft to the touch like velvet. BARREN PLANT; *Empalement* hairy, tinged on one ſide with red. *Petals, border* divided down to the claws; *claws* fringed at the top with 4 little ſcales which nearly cloſe the mouth of the bloſſom. *Threads* fixed to the receptacle, unequal, hairy. *Tips* terminating, thoſe on the longer threads diſcharging their duſt firſt. *Pointals*, the rudiments of generally 1 or 2 in the centre of the receptacle. FERTILE PLANT; *Empalement* more diſtended, with 5 prominent ribs, and 5 intermediate ſmaller ones, ribs coloured. *Petals*, border cloven but half way down to the claws. *Receptacle of the ſeeds* large. WITH.

Lychnis alba. CURT. cat. n. 321.

Wild White Campion.

Paſtures, hedges, [and fallow fields ſometimes ſo plentifully as to make them appear at a diſtance quite white, where the red is never found. ST.] P. June.—Aug. [May.—Sept. ST.]

3. Bloſſoms fleſh-coloured. Flowers with chives and pointals within the ſame empalement. HUDS. Mr. WOODW. but ſometimes on diſtinct plants. Mr. WOODWARD. fleſh-coloured

Aphis Lychnidis lives upon it. LINN.

A Horſe eat it. ST.

637. CERAS-

637. CERAS'TIUM. Mouſe-ear.

EMPAL. *Cup* 5 leaves; egg and ſpear-ſhaped; ſharp; expanding; permanent.
BLOSS. *Petals* 5; cloven; blunt; upright; but expanding; as long as the cup.
CHIVES. *Threads* 10; thread-ſhaped; ſhorter than the bloſſom; alternately longer and ſhorter. *Tips* roundiſh.
POINT. *Seed-bud* egg-ſhaped. *Shafts* 5; hair-like; upright; as long as the chives. *Summits* blunt.
S. VESS. *Capſule* egg-cylindrical; or globular; blunt; with 1 cell; opening at the top; with 5 teeth.
SEEDS many; roundiſh.

ESS. CHAR. *Empalement of* 5 *leaves. Petals cloven. Capſule of* 1 *cell; opening at the point.*

* *Capſules oblong.*

narrowleaved CERAS'TIUM *vulga'tum.* Leaves egg-ſhaped. Petals as long as the empal. Stems ſpreading. LINN.—Panicle forked. HUDS.—*Petals generally longer, ſometimes ſhorter than the empalement.* ST.

Curt. ii. 22.—*Vaill.* 30. 1.—*Pet.* 58. 6.—*J. B.* iii. 359. 1.—*(Vaill.* 30. 3, *and Pet.* 58. 5, *is C. viſcoſum.)*

Very much reſembling *C. viſcoſum*, but *ſtems* more numerous, more reclining, forming a thicker turf before they flower, flowering later, continuing longer. *Leaves* leſs ſpear-ſhaped, and more egg-ſhaped.* *Fruit-ſtalks* not clammy. *Capſules* ſmaller. *Empal.* outer leaves not membranaceous at the edge. LINN.—Whole *plant* rough with hair. *Flowers* never much expanded. *Capſule* opening with 10 teeth. WITH.—*Hairs* not terminated by globular glands; ſometimes but thinly ſcattered over the plant. *Stems* from 1 inch to 2 feet high. *Leaves* varying very much in breadth, the lower ones oblong-egg-ſhaped. *Bloſs.* varying in ſize, ſmaller when the plant is luxuriant, and the reverſe. CURT.—*Bloſſoms* white.

Meadows, paſtures, walls, ſides of roads, and amongſt rubbiſh.

P. VAILL. CURT. May.—Aug.

* The reverſe of this is generally obſervable with us. CURT. ST.

CERAS'

CERAS'TIUM *viſco'ſum*. Upright, woolly, and clammy. LINN.—Panicle forked. Flowers longer than the fruit-ſtalks. HUDS. *clammy*

Curt. ii. 14.—*Vaill.* 30. 3.—*Pet.* 58. 5.

Chives ſometimes 5. HALL.—*Stems* in a barren ſituation ſimple, and 2 inches high. *Flowers* while the plant is young cloſely crowded together. *Petals* narrow. *Foliage* paler than that of *C. vulg.* and *ſemidec.* *Chives* 10. CURT. ST.—*Stem* cylindrical, woolly. *Leaves* egg-ſhaped, blunt, woolly, ſitting, oppoſite. *Flowers* on very ſhort fruit-ſtalks, forming a ſort of rundle in the boſom of the upper pair of leaves. *Empalement* with fine ſhining hairs on the outſide and at the edges. *Petals* ſhorter than the empalement. *Summits* woolly. *Capſule* opening with 10 teeth. WITH.——*Plant* woolly; *hairs* thick ſet, whitiſh, tapering to a fine point, in the upper part of the ſtem intermixed with others terminated by oval, tranſparent glands, ſcarcely thicker than the hairs. *Leaves* oblong-inverſely egg-ſhaped. *Bloſſoms* white. ST.

Meadows, paſtures, walls, dry banks, and ant-hills.

A. Apr. May. [to Oct. WITH.]

Horſes and Goats eat it. Cows and Sheep refuſe it.

CERAS'TIUM *ſemidecan'drum*. Chives 5. Petals notched at the end.— *leaſt*

Curt. ii. 21.—*Ray* 15. 1. *at p.* 348, *as growing on heaths.*—*Vaill.* 30. 2.

Stems very ſhort. *Leaves* egg-ſhaped, oppoſite, ſomewhat channelled, blunt, ſprinkled with very ſhort hairs. *Fruit-ſtalks* very ſhort, each with 1 flower. *Empalement* with glutinous hairs, membranaceous at the point and edges. *Petals* ſtrap-ſhaped, white, ſharply notched at the end. *Chives* 5, with white tips, the 5 inner ones without tips. Five *honey-cup dots* between the fruitful chives and the petals. *Seed-bud* egg-ſhaped. *Shafts* 5. LINN.—*Chives* 5 to 10. *Shafts* 3 and 5. GERARD prov.—*Chives* 5. *Shafts* 3. HALL.—All the 10 chives with tips. SCOP.—*Shafts* 5. SCOP. and POLLICH. *Stem* in very dry ſituations ſimple, and about 2 inches high, but more commonly branched, or numerous aſcending ſtems 6 inches high, and clammy with glandular hairs. *Empal.* leaves terminated by a pointed membrane, clammy with glandular hairs. *Petals* ſhorter than the empalement, often gnawed. *Chives* generally 5, now and then 6, ſeldom more. CURT.—*Empalement* tinged at the end with purple. Mr. BALLARD.

Walls, paſtures, and heaths. A. Apr. May.

CERAS'-

corn CERAS'TIUM *arven'ſe*. Leaves ſtrap-ſpear-ſhaped, blunt, ſmooth. Bloſſoms larger than the empalement. LINN.—*Leaves always a little hairy.* HALL. Mr. WOODW. ST.—*Hardly to be called blunt.* ST.

Vaill. 30. 4, *and alſo* 5, *which is not C. repens, as is evident from the capſule, d.*—*Ger.* 477. 11.—*Fl. dan.* 626.—*J. B.* iii. 360. 1.—*Ger. em.* 595. 15, *cop. in Park.* 1339. 7.

Leaves pointed, covered with a ſhort thick down. VAILL.—*Petals* twice as long as the empalement. HALL.

Caryophyllus holoſteus arvenſis. GER. em. 595. (WITH.)

Corn fields, gravelly meadows and paſtures, at the foot of walls, dry banks and heaths, in Cambridgeſhire. Dupper's Hill, near Croydon. [About Bury, frequent, amongſt corn. Mr. WOODW. —Near Norwich. Mr. CROWE.] P. May.

alpine CERAS'TIUM *alpi'num*. Leaves egg-ſpear-ſhaped. Stem divided. Capſules oblong. LINN.—bowed. HALL.*

Fl. dan. 6.—*Ray* 15. 2. *at p.* 348.

Leaves ſometimes ſmooth, and ſometimes ſomewhat hairy. LINN. *ſuec.*—We have here 2 varieties; one with the leaves quite ſmooth and almoſt gloſſy; the other with woolly leaves; but they are clearly one ſpecies. What can be the cauſe of the ſmoothneſs of the one, growing, as they do, intermixed? *Flowers* generally 1, and ſometimes 2, but in the Dutch gardens ſeveral on a ſtem. LINN. *fl. lapp.*—Some *plants* green, and others hoary. Doubted whether not 2 diſtinct ſpecies. *Leaves* on the ſtems more numerous than in *C. latifolium*. RAY.

Mountains and ſides of rills, as on Snowdon, on the north ſide of Wyddfa, and Clogwyn du yn yr Ardue near Llanberys. P. June. July. [Beginning of Aug. RAY.]

Cows and Sheep eat it.

mountain (*CURT. ST.) CERAS'TIUM *latifo'lium*. Leaves egg-ſhaped, ſomewhat downy. Branches, each with 1 flower. Capſules globular. LINN.—*Leaves downy. Capſules roundiſh, but when ripe lengthened out into a ſtraight horn.* HALL. Mr. WOODWARD.

Lightf. 10. *at p.* 242.†—[*Marten ſpitzb. G. d. not examined.*]

Stems

* If this mark of difference ſhould prove uniform, *Lightf.* 10. *at p.* 242, will prove to be *C. alpinum*. ST.

† This figure accords in habit with *Fl. dan.* 6, which is referred by Linn. to *C. alpinum*, as does Mr. Lightfoot's deſcription of it with that given by Linn. in

Stems trailing, branched, ſtraddling at right angles. *Flowers* large. *Empalement* bell-ſhaped. G. *in* LINN.—*Stems* with 2 flowers. *Leaves*, all downy, the lowermoſt egg-ſhaped, crowded, the upper egg-ſpear-ſhaped, thickiſh, pulpy. *Flowers* upright, generally only 1, ſometimes 2. HALL.—Whole *plant*, except the petals and capſules, covered with long, ſoft, ſhining hairs. *Lower-leaves* oval; *upper* oval-ſpear-ſhaped, oppoſite. *Branches* terminated by 1 or 2 flowers. *Flowers* large, on ſeparate fruit-ſtalks, each furniſhed with 2 oppoſite ſpear-ſhaped branches. *Capſule*, horn blunt. Mr. WOODWARD.

On a rock near Glogwyn y Garnedd, the higheſt in all Wales, near Llanberys, Caernarvonſhire; and rocks on the ſummits of the Highland Mountains. LIGHTF. P. May. June.

** *Capſules roundiſh.*

CERAS'TIUM *umbella'tum*. Leaves egg-ſhaped. Flowers in rundles. Petals nearly entire. Fruit pendant. HUDS. ST. *umbelliferous*

J. B. iii. 361. 1.—*Roſe* 2. 4.—*Ger. em.* 595. 16, *cop. in Park.* 1338. 6.—*H. ox.* v. 22. 46, *(not* 49.*)*

Deſcription in Engliſh. ROSE p. 446.

Petals with 3, and ſometimes only 2 teeth. *Chives* 5, but ſometimes only 4 or 3. *Shafts* 3, and ſometimes 4. HALL.—*Chives* always 3, except once when I found 5. LEERS.—*Flower-ſcales* very ſmall, egg-ſhaped, at the baſe of the fruit-ſtalks. *Petals* inverſely egg-ſhaped, with 3 teeth at the end, white. POLLICH. ST.—*Chives* 3, 4, and 5, with 3 ſhafts, and alſo 10 with 5 ſhafts. HUDS. Whole *plant* ſmooth. *Stem* above bare of leaves. *Fruit-ſtalks* terminating, moſtly hanging down, of various lengths, each with 1 flower. Mr. WOODW.—*Petals* with 5 white ribs; teeth unequal, ſometimes 5. *Holoſteum* differs from *Ceraſtium* only in number. There are *Ceraſtiums* with 5 chives; in the *C. pentandrum* the petals are

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in the *fl. lapp.* of *C. alpinum*. Switzerland is the only place of growth aſſigned by Linnæus to his *C. latifolium*. The botaniſts of that country, however, C. Bauh. and Haller, deſcribe the capſule as *oblong*, which induces me to believe that Linnæus was miſled reſpecting the form of the ſeed-veſſel, from examining dried ſpecimens in which the fruit was not advanced to maturity; and that *the variety of C. alpinum with woolly leaves* of the fl. lapp. and the *C. latifolium* are one and the ſame plant. Neither Mr. Lightfoot nor Mr. Hudſon appear to have ſeen both ſpecies. My ſpecimens accord with the *C. alpinum with woolly leaves* of the *fl. lapp.* hairs long, ſoft, and wool-like; ſtems aſcending, bearing one flower; or forked with 1 fruit-ſtalk from the fork without floral-leaves, the 2 lateral branches bearing each 1 flower with 2 oppoſite floral-leaves; capſules oblong, with a ſcarcely perceptible degree of curvature. ST.

are entire, in the *repens* cloven into 4 and 5; and, on the other hand, in the *Holoſteum cordatum* they are divided, as in the generality of the *Ceraſtiums*, into 2. St. (W. 85.)

Holoſteum umbellatum, which ſee.

Old walls, banks, and ſandy corn fields about Norwich, where it was firſt diſcovered and examined by Mr. J. Pitchford. Rose. Mr. Woodw.—Found about Bury, in Suffolk, by Mr. Cullum. A. April. May.

marſh CERAS'TIUM *aquat'icum*. Leaves heart-ſhaped, ſitting. Flowers ſolitary. Fruit pendant.—

Curt. i. 3, *but the engraver has forgotten to give the ſtem its due hairineſs.—Dod.* 29. 1, *repr. in Ger. em.* 611. 1, *and cop. in Park.* 759. 2.—*Ger.* 438. 1.—*(Ger.* 613. 10, *cop. in Park.* 1259. 1, *is alſo referred to by Ray, and is poſſibly the ſame plant before any of its ſeed-veſſels become pendant.—J. B.* iii. 362, *is Polygala vulgaris.)*

Allied to *Stellaria nemorum*. *Stems* 1 or 2 feet high, weak, cylindrical, ſcarce perceptibly 2-edged, jointed; joints reddiſh at the baſe. *Branches* rather few, ſolitary, alternate, ſimple, often as long as the ſtem, hairy above. *Leaves* heart-egg-ſhaped, oblong, ſitting, embracing the ſtem, waved at the edge, pointed, ſmooth, keeled, keel ſharpiſh; the uppermoſt ſomewhat hairy, and the 1ſt leaves of the branches ſmaller, heart-ſhaped, on fringed leaf-ſtalks. *Flowers* from the boſom of the upper leaves and forks of the ſtem, on fruit-ſtalks, ſolitary, with fruit-ſtalks and empalements hairy, clammy. *Petals* divided into 2, white, twice as large as the empalement. *Chives* 10, white. *Pointals* 5, white. The *empalement* and *fruit-ſtalk* of the fruit nodding downwards. *Capſule* egg-ſhaped, with 5 blunt corners, ſcarcely longer than the empalement, of 5 valves, hollow above, of 1 cell. *Seeds* roundiſh, yelloviſh red. Linn.—*Shafts* often 6. Pollich.—*Leaves* often heart-ſpear-ſhaped, and ſometimes curled at the edge. Whole *plant* ſet thick with fine ſhort hairs, terminated by globular heads, containing a clammy liquor. *Stem* not always red at the joints. *Branches* forked. *Empal.* ſegments ſpear-ſhaped. *Petals* rather longer than the empalement. With.—It has the greateſt natural affinity to *Alſine media*. Curt. St.—But is diſtinguiſhable by the lower ſtem-leaves of the *Alſine media* having leaf-ſtalks, and one of the edges of the ſtem being ſet with hairs, while in the *C. aquaticum* the hairineſs is general. St.

Watery places, and banks of rivers. P. July.

CERAS'-

CERAS'TIUM *tomento'ſum*. Leaves oblong, downy. *woolly*
Fruit-ſtalks branched. Capſules globular.—

Whole *plant* white with a thick down. *Stems* in a thickly matted tuft, forked, with ſometimes a ſingle flower on a long fruit-ſtalk from the diviſion; the diviſions branched, but expanding, each branch bearing a ſort of rundle. *Leaves* gradually narrower downwards, the pair below the forks of the ſtem about $3\frac{1}{2}$ lines broad, and 10 long, much broader than the ſtem, or the whole empalement; the pair next below $\frac{1}{2}$ a line narrower, and the 3d pair 1 line ſhorter, and $\frac{1}{2}$ a line narrower than the 2d. *Fruit-ſtalks* ſingle, of various lengths. *Flower-leaves* ſpear-ſhaped, with membranaceous edges, in pairs at each diviſion of the ſtem. *Empal.* leaves ſpear-ſhaped, with membranaceous edges. *Petals* as long again as the empalement, cloven not $\frac{1}{4}$ way down; ſegments blunt. *Chives* 10, as long as the empalement, downy. *Tips* yellow. *Capſules* globular. *Shafts* 5, downy, as long as the chives. Mr. WOODWARD.

Specimens gathered in the garden of Mr. WHITELOCK, who aſſured me that it was the individual plant he had tranſplanted from Ripton Wood, Huntingdonſh. where he found it growing wild. Mr. WOODWARD.

636. SPER'GULA. Spurrey.

EMPAL. *Cup* 5 leaves; egg-ſhaped; blunt; concave; expanding; permanent.
BLOSS. *Petals* 5; egg-ſhaped; concave; expanding; entire; larger than the cup.
CHIVES. *Threads* 10; awl-ſhaped; ſhorter than the bloſs. *Tips* roundiſh.
POINT. *Seed-bud* egg-ſhaped. *Shafts* 5; upright, or reflected; thread-ſhaped. *Summits* rather thick.
S. VESS. *Capſule* egg-ſhaped; covered; with 1 cell, and 5 valves.
SEEDS many; globular, but depreſſed; encompaſſed by a border, with a notch in it.
ESS. CHAR. *Empal. leaves* 5; *entire. Capſule egg-ſhaped; of* 1 *cell, and* 5 *valves.*

SPER'GULA *arven'ſis*. Leaves in whorls. Chives *corn*
10. LINN.—Fruit pendant. HUDS.—*Chives* 5, 7, 8, 10. SCOP. ST.—often 6 and 7. POLLICH.

Curt. v. 52.—*Dod.* 537, *repr. in Lob. obſ.* 467. 1, *Ger. em.* 1125; *and cop. in Park.* 562.—*J. B.* iii. 722. 1, *cop. in Pet.* 59. 6.

Leaves 6 in a whorl, 3 on each ſide, round, thread-like, woolly, clammy. *Fruit-ſtalks* branching. LINN.—*Leaves* ſomewhat flatted, convex above, with a ſingle furrow underneath. *Seeds*, border ſharp, exceedingly ſhallow, very entire, but with a nick at its inſertion on the receptacle; in ſome plants beſet on each ſide with exceedingly ſhort brown hairs, or rather cylindrical prominencies, in others with ſcarcely prominent dots. *Chives* equally variable in the plants with rougher or ſmoother ſeeds. ST.—*Root* ſimple, deſcending. *Stems* upright, cylindrical, knotty. *Leaves* ſtrap-ſhaped, fleſhy. *Flowers* in panicles. *Flower-ſcales* oppoſite, very minute. *Fruit-ſtalks* bent back after flowering. *Bloſſoms* white. LYONS.—*Chives* in the autumn frequently fewer than 10. *Seeds* rough with riſing dots, when ripe black, with a white border. WITH.—If the ſtems are forcibly extended, the cortical part ſeparates at the baſe of each joint, while the inner part, which is very elaſtic, ſtretches and continues entire, or, on increaſing the extenſion, breaks generally a conſiderable way above the joint. Mr. WOODWARD. WITH.

Corn fields, and ſandy places. A. July. Aug. [Sept. ST.]

Poultry are fond of the ſeeds; and the inhabitants of Finland and Norway make bread of them when their crops of corn fail. Experience ſhews it to be very nutritious to the cattle that eat it.

Horſes, Sheep, Goats, and Swine eat it. Cows refuſe it.

β. *pentándra*. HUDS. Mr. WOODWARD.—Flowers with 5 and 10 chives found on the ſame plant. HUDS.

Spergula pentandra, which ſee.

5-*chived* SPER'GULA *pentan'dra*. Leaves in whorls. Chives 5. LINN. CURT. cat. n. 753.

Very much like *S. arvenſis*, but ſmoother. LINN.

Spergula annua ſemine foliaceo nigro, circulo membranaceo albo cincto. R. ſyn. 351, is referred to by Hudſon, but, from his not having given us any place of growth, it ſhould ſeem to have retained its place in the Fl. angl. from Linnæus's direction, in Munt. II. 90, to eraſe the ſynonyms of *S. pentandra*, having eſcaped Mr. Hudſon's notice. It is referred by Linn. to *Arenaria media*, which may poſſibly prove a Britiſh ſpecies. I have a ſpecimen from Germany which accords with the deſcriptions of Moriſon and Ray, and which I believe to be the *S. pentandra* of *Mœnch* and *Scopoli*. In habit it reſembles *S. arvenſis*, not *Arenaria rubra maritima*, and has 5 ſhafts; but the *fruit* is *upright*, and the ſeeds ſimilar to thoſe of *A. rubra maritima*, are *flat*, *inverſely egg-ſhaped*, *and ſurrounded with a membra-*

membranaceous border, deeper than the diameter of the ſeed, with a nick at the place of inſertion to the receptacle. Add to this, that *no furrow* was obſervable *on the under ſurface*. Theſe circumſtances ſufficiently mark it out as diſtinct from the *S. arvenſis*. The botaniſts of Ireland may enable us to aſcertain this point. ST.

SPER'GULA *nodo'ſa*. Leaves oppoſite, awl-ſhaped, ſmooth. Stems ſimple.— *knotted*

Curt. iv. 44, *in its moſt luxuriant ſtate.*—*Fl. dan.* 96, *in its more contracted ſtate.*—*J. B.* iii. 724.—*Ger.* 567. 6, *cop. in Park.* 427. 3.—*Pluk.* 7. 4.—*Pet.* 59. 5, *lateral branches too numerous in the 2 laſt.*

Bunches of very minute leaves in the boſom of the oppoſite leaves which are the rudiments of ſmall branches. RAY. ST.—*Foliage* very much reſembling that of *Sagina procumbens*. *Stems* not unfrequently branched; branches lateral, ſhort. *Flowers* terminating, generally ſolitary. *Empalement* of 1 leaf, with 5 diviſions; ſegments oblong, membranaceous at the edge, every other ſhorter. *Petals* white, as long again as the empalement, inverſely egg-ſhaped, ſtreaked. *Tips* oblong, whitiſh. *Seeds* kidney-ſhaped, minute, black, with a net-work on the ſurface, not bordered. *Capſule* egg-ſhaped. The ſtructure of its ſeeds ſhew it not to be of the ſame natural genus with *S. arvenſis*. It is moſt cloſely allied to *Arenaria laricifolia*. ST.

Marſhy places, wet paſtures, and ſides of rivers, lakes, and marſhes. [Bogs about Settle, and in the North. CURT.—Boggy ground in Sutton Park, Warwickſhire. ST.]

P. July. Aug. [Sept. ST.]

SPER'GULA *ſaginoi'des*. Leaves oppoſite, ſtrap-ſhaped, ſmooth. Fruit-ſtalks ſolitary, very long. Stem creeping. LINN. RETZ. CURT. Mr. WOODWARD. ST.—Chives 5. HUDS.—5 to 10, but moſtly 5. CURT. *Pearlwort*

Curt. iv. 40.—*Fl. dan.* 858.

Stem trailing, 2 inches high. *Leaves* in bundles (alſo) at the joints. *Fruit-ſtalks* quite ſimple, lateral, without flower-ſcales. *Flowers* nodding. LINN.—*Root* branched. *Stems* ſeveral, branched. *Leaves* connected, awl-ſhaped, fringed, pointed. *Fruit-ſtalks* towards the ends of the branches, cylindrical, with 1 flower. *Petals* white. *Chives* 5, more rarely 10. HUDS.—Has the habit and leaves of *Sagina procumbens*, but taller. *Empalement* beſet with very ſhort hairs. VAILL.—Agrees alſo with *Sagina procumbens* in the form of its capſules, ſhape and ſize of its ſeeds, but the *whole plant* is beſet with ſhort hairs terminated by minute globules, very diſtinguiſhable

able when magnified; and the *petals* are as long as the empalement, and when fully expanded very conſpicuous. CURT.

S. laricina. LIGHTF. HUDS. *Fl. dan.* (*Not S. laricina of Linnæus.* RETZ. CURT. ST. *which Gmelin deſcribes* as fringed *towards the baſe*, and with *alternate fruit-ſtalks from the upper part of the ſtem.*—*Fl. dan.* 12, *is referred alſo by Linnæus himſelf to Stellaria biflora, not to mention the flower-ſcales on the fruit-ſtalks.* ST.)

Dry paſtures in a gravelly ſoil. Uxbridge Moor. Iſle of Bute; Cobham and Eſher, Surry; Devonſhire and Cornwall; Putney Heath, Coomb Wood, Surry; Bagſhot Heath, Potnell Warren, near the great bog at Virginia Water. P. June.—Aug.

END OF VOL. I.